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## Business Models for Local Foods

### *Finding a Way to the Market*

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# **Community Supported Agriculture Programs: A Novel Venue For Theory-Based Health Behavior Change Interventions**

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## **Extended Abstract**

In recent years, the “buy local” movement has escalated in popularity, with the number of farm-based local foods programs, such as farmers’ markets and community supported agriculture programs (CSAs), dramatically increasing in the last few decades. In 1970, for instance, only about 340 farmers’ markets existed in the United States. By 2012, however, nearly 7,864 markets were operating across the country (USDA 2013a). And although the concept of the CSA was introduced to the United States as recently as the early 1980’s, it’s estimated that over 4,000 farms operate CSAs today, with some estimates placing the number as high as 6,000 (Ernst and Woods, 2013). Additionally, in the United States, some of the nation’s largest retailers, such as Wal-Mart, are vastly increasing their purchases of locally grown produce (Nunes, 2013; Bustillo and Kesmodel, 2011).

Despite the heightened interest in locally grown foods and local foods programs, little research exists documenting the extent to which involvement in local foods programs might affect dietary behaviors and other health outcomes (McCormack et al., 2010; George, Kraschnewski and Rovniak, 2011). CSAs, in particular, remain poorly studied with respect to dietary and health outcomes. However, because of the way these programs are structured, CSAs might be of specific interest with respect to nutrition-related outcomes. Using the Theory of Planned Behavior (TPB; Fishbein and Ajzen, 1975) as a foundation upon which a CSA-based intervention could be investigated, consumers’ perceptions, values, and motivations with respect to involvement in CSAs were examined through three semi-structured focus groups, comprising a total of twenty-two participants. Specifically, we sought to understand consumer motives for joining (and withdrawing from) CSAs, as well as their experiences and self-reported outcomes of belonging to a CSA using the TPB as a theoretical structure.

A number of themes emerged relating both to motivations for join a CSA, as well as outcomes of CSA involvement. The condensed themes are presented graphically in the TPB framework (see Figure 1).

Connecting participant self-reported attitudes and behaviors to behavior change constructs provides a theoretical basis for potential future behavior change interventions focused on improving dietary intake, specifically fruit and vegetable consumption. For example,

participants noted strong motivations for joining a CSA, including behavioral beliefs that CSA produce would contribute to a healthier, safer, and more environmentally sustainable diet. Participants also noted that CSAs offer built-in social connections, leading to shared normative beliefs about CSA produce use among participants and family members. Finally, participants described important control beliefs, in most cases identifying location and cost as convenience factors improving their ability to make use of the produce they received. They also noted an enhanced sense of control over the healthfulness, freshness, 'naturalness,' and sustainability of the food they ate by receiving produce through a CSA.

As a result of these enhance beliefs, a number of outcomes were noted, including healthier food consumption behaviors; enhanced social connections with family, community, and the food system itself; changes in beliefs about previously acceptable products and practices (e.g., amount and variety of produce, conventional produce procurement, conventional food retailers, foodservice outlets); improved self-efficacy; and an array of strongly felt emotions ranging from pride, anticipation, adventure and accomplishment to guilt.

Using the TPB as a framework to categorize findings, data revealed that the outcomes of CSA membership were discussed far more extensively than respondents' original motives for joining. The three components of behavioral intention – attitude toward the behavior, beliefs about others' expectations, and perceived self-efficacy – were all discussed as outcomes of CSA membership. It is therefore possible that these reported outcomes in connection to theoretical constructs could serve as a foundation for future intervention research.

In particular, respondents' attitudes towards continued CSA membership were positively shaped by myriad outcomes, which included: children and family member involvement and education; connection with nature; perceived benevolence of supporting local farming; consideration and re-examination of conventional food retailing; realization of health connection; higher degree of involvement (importance) of produce; and reflection of one's self and/or a reinforced self-image. Importantly, the affect associated with continued membership (e.g., anticipation, adventure, safety assuredness) also contributed toward positively held attitudes. The involvement and anticipation by others – including family, friends, neighbors, and work colleagues– served to reinforce the normative component of CSA membership. Specifically mentioned were rituals involving dinner preparation and eating together – a time not only for bonding with family, but for discussion to occur. Finally, the tremendous sense of pride and

accomplishment in mastering new recipes and successfully maneuvering their ways through new and abundant produce, enhanced respondents' perceived control.

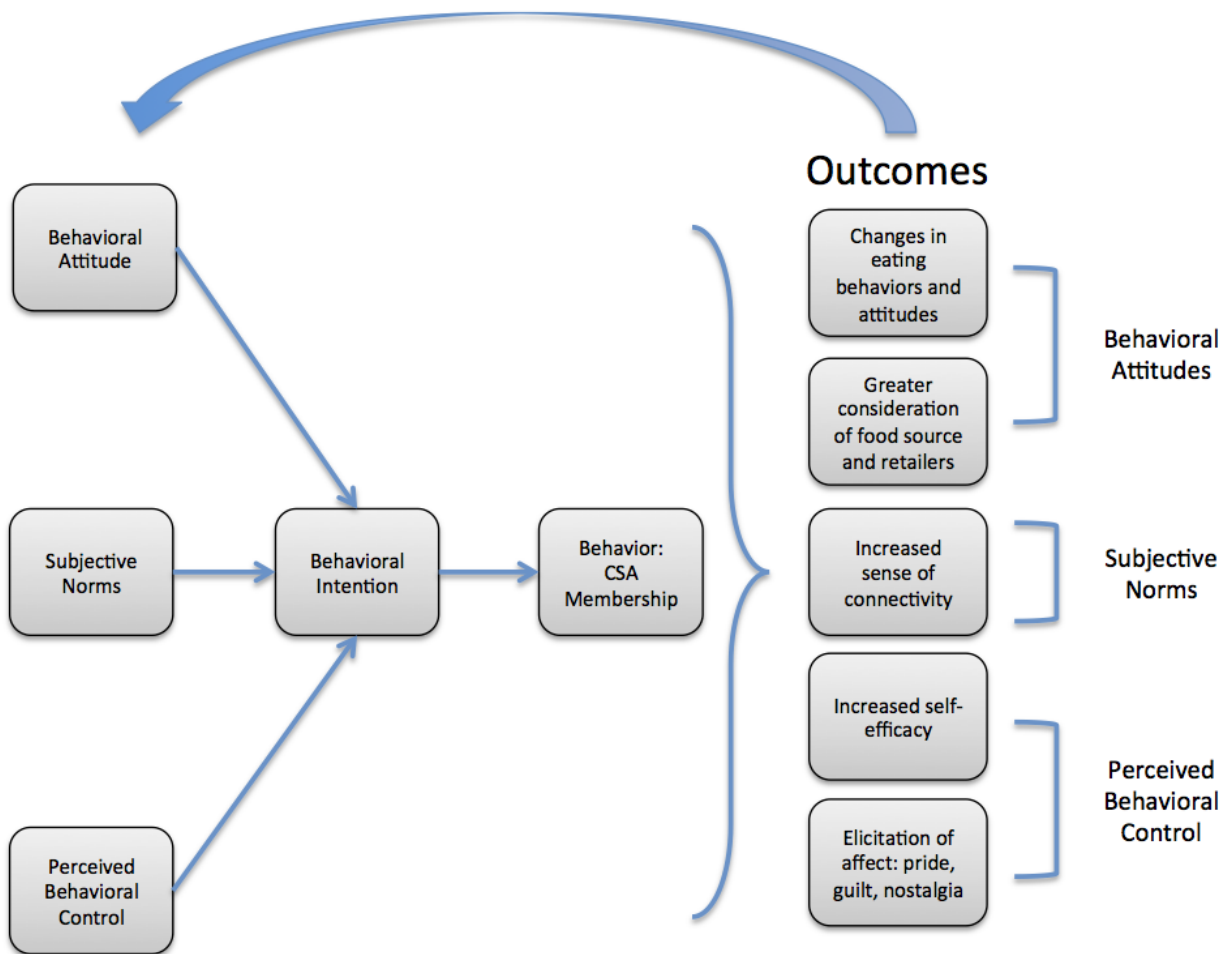
Fruit and vegetable consumption remains poor among Americans. Identifying novel avenues for dietary change interventions can contribute to the constellation of approaches necessary to address lifestyle-related conditions and diseases. Based on the results of this qualitative study, a number of qualities inherent in CSA programs might lend themselves to theoretically based dietary interventions to improve fruit and vegetable consumption. However, future research is needed to examine both the feasibility and effectiveness of CSA-based interventions to impact dietary behavior.

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Figure 1. Theory of Planned Behavior applied to CSA Membership



**Behavioral attitudes.** Initial motives included: preference for tastier produce; support of local communities; protection of farm land; food safety; previous knowledge of CSA; to be more sustainable, healthier, and/or environmentally-friendly; and to add variety and excitement in vegetable consumption. Nostalgic-based motives were also recounted (e.g., growing up in farming communities, frequenting farmers' markets).

**Normative beliefs.** In these cases, participants indicated their desire to be supportive of a family member or friend that had initially suggested the CSA to them.

**Control beliefs.** Original motives included greater convenience and perceived cost-value .

# **Business Models For Local Foods: Finding A Way To The Market**

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## **Abstract**

Interest in local foods is growing, but there has been limited research on who and why producers of local foods thrive or struggle. A particularly important problem for local food producers is how to reach end consumers, as they often find it difficult to work with the retail chains that dominate sales of food products (and vice versa) and therefore have to develop alternative marketing channels. The purpose of this paper is to investigate the practices of different small and medium-sized Danish producers of locally grown and/or processed foods in relation to developing marketing channels for their products.

**Keywords:** business models, challenges, local foods, marketing channels

## **Introduction**

The current food regime is characterised by increasing industrialisation, bulk production, growing power of food retailers and standardisation of meals (Dixon, 2008). Of the many quality aspects like appearance, taste, heterogeneity, place, sustainability, fairness, animal welfare and food safety, only few are actively discussed in negotiations between actors in the food chain. There is an increasing decoupling of product quality from production to the effect that the qualities that are communicated to consumers in supermarkets often cannot easily be traced back to primary production. For primary and secondary producers, this development can lead to a locked-in strategy focused on mass production at low costs – what has been called a race to the bottom (Marsden, 2003), where both consumers and food producers lose (Schermer, 2006).

There are of course also counter-developments. Not least, there are consumers that demand ‘better’ food (i.e., food that is of higher ‘quality’ and more ‘authentic’) in terms of the sourcing, processing and specialist distribution/retailing (McEachern et al., 2010). Interest in authenticity is thus increasing (Carroll and Wheaton, 2009). Authenticity is not something that can be objectively determined, but is rather a socially constructed phenomenon with certain, specific aspects of a product, performance, place or producer becoming defined and treated as authentic within specific social contexts (Carroll and Wheaton, 2009). The demand for authenticity affects prices, organisational dynamics and consumption patterns, i.e., markets. In relation to food, authenticity often stands for natural, traditional and/or local food products, exemplified by developments such as the slow-food movement (Andrews, 2008) and the rise of micro-breweries (Carroll and Swaminathan, 2000), and are seen by some observers as reflecting a willingness to move from conspicuous to more conscious consumption (Hamilton, 2005).

While there has been significant research on why consumers buy locally and regionally produced foods and use alternative retail outlets (Autio et al., 2013, Carey et al., 2011, Manniche and Larsen, 2013, McEachern et al., 2010), there has been relatively less focus on how and why producers of local foods thrive or struggle (Abatekassa and Peterson, 2011, Guthrie et al., 2006). This is unfortunate, as many producers of local food products have difficulties building channels of distribution and hence reaching consumers (Abatekassa and Peterson, 2011). Traditional marketing channels such as supermarket chains are often difficult for small producers to work with because these retailers typically demand that suppliers are able to supply products in large quantities and consistent quality (Skytte and Blunch, 2001, Skytte and Bove, 2004). Local food producers therefore have to find alternative business models and outlets such as farm gate selling, farmers’ markets, community-supported agriculture, online selling or institutional markets. Research in the United States suggests that institutional buyers see a number of obstacles in relation to buying locally grown produce: year round availability, local and state regulations, working with multiple vendors, obtaining adequate supply, reliable food quantity and on-time delivery (Strohbein and Gregoire, 2002, Hardesty, 2008).

Research has shown that it is difficult for individual actors in complex food networks to change quality conventions (Noe and Alrøe, 2010). Nevertheless, there are many that try to break with established ‘quality regimes’ (Goodman, 2003) and to build alternative food networks (Renting et al., 2003, Whatmore et al., 2003). This paper investigates how small local food producers can find a way to the market with their products.

The purpose of this study is to investigate the practices of different small and medium-sized Danish producers of locally grown and/or processed food products in relation to developing

(alternative) channels of distributions for their products. The project is based on the assumption that many small local food producers have limited economic resources and lack the competences to successfully build and maintain relationships with traditional channel members such as wholesalers and retailers. The paper reports the first findings of an ongoing project on the experiences local food producers have with marketing their products. More specifically, the study tries to shed light on the business models of these firms and the barriers and possibilities that producers of locally grown and/or processed foods experience with regards to marketing channels.

## **Business models**

Although the term business model is widely used by both academics and practitioners, the literature is fragmented and definitions inconsistent (George and Bock, 2011). Some suggest that a business model should be seen as a managerial theory of value creation and capture. For instance, Baden-Fuller and Morgan define a business model as ‘the reflection of the firm’s strategy. It refers to the logic of the firm, the way it operates and how it creates value for its stakeholders’ (Baden-Fuller and Morgan, 2010: 157). Others see a business model as how managers imagine they could leverage the company’s resources and activities beyond its current business (Chesbrough and Rosenbloom, 2002). In both cases, the business model becomes a template for discussing a business idea internally among firm employees and for interacting with external actors, for instance detailing how the individual elements of the business model add up to a marketable outcome for critical stakeholders, such as potential investors or customers (Osterwalder et al., 2005).

## **Local foods – strategies for re-localisation**

What are local foods? There is far from agreement on this issue and ‘local foods’ can thus be considered a ‘contested concept’ (Tovey, 2010). Local foods, which are embedded in social, cultural and territorial contexts, are often seen as an alternative to mass-produced foods without clear origin (*food from nowhere*) (Fonte, 2010b). In contrast, local foods are *food from somewhere*. Local foods are often associated with nearby places and short distances between production and consumption, but also with particular places, regions and territories. ‘Local foods’ is thus not a neutral concept and there are often strong ideological connotations associated with what are called local foods (Pratt, 2007).

When trying to understand what local foods are it is possible to distinguish between two perspectives, which can be considered polar opposites (Fonte, 2010b). The first perspective understands ‘local’ as *socio-spatial proximity*, where producers and consumers in same (narrow) geographical place are (re)connected (*the re-connection perspective*). In the other perspective, the concept of ‘local’ refers to a particular territory (space) and the specific conditions, which foods are produced under (*the origin-of-food perspective*). In the first perspective focus will be on local customers and local markets (often through face-to-face relations, which enable the building of trust), where focus in the second perspective more will be on distant customers and markets, and where connections and relationships between producers and consumers often build on information and certification (Fonte, 2010b).

## The resources of local food producers

Besides the challenges in establishing new business models on the basis of local foods a broader variety of elements often is needed. Small food producers often lack access to relevant knowledge networks, market networks, distribution network and regulatory networks.

Small food producers often have limited resources. This holds both in internally in the firm, but also with regard to which resources are available in the firm's environment (Welter, 2011). When developing business models for small local food producers it is therefore important to take the local resources, which firms have access to and can mobilise in their value creation processes, into account. If you want to understand how small local food producers can create value it is necessary to study (1) what social, economic and natural/physical resources are provided by the local context, (2) how local food producers can get access to, build, accumulate, combine and utilise resources to create opportunities and value, and (3) how the local food producers can build a bridge between their local area and their markets (Müller, 2013).

## Roads to market

As local food producers are different and driven by different interests and motives, it is important to realise that one business model will not fit all local food producers. Small local food producers have to find their own way to market.

Table 1 describes two main strategies of food-relocation, which have been identified and described based on a number of different case studies carried out in different countries in conjunction with the CORASON-project (Fonte, 2010a). These strategies involve different roads to market.

**Table 1** Main characteristics of the two strategies of food re-localisation

	<b>Re-connection (local food)</b>	<b>Origin-of-food (locality food)</b>
Context	Food desert	Marginalisation
Limiting dimensions of the food system sustainability	Social, environmental	Economic
Resources (cultivated varieties, breeds, etc.)	Place specificity needs to be rebuilt	Specific to the place
Product quality	Fresher, healthier, more environmentally sustainable	Place-identity
Producers	Post-modern farmers	Post-traditional farmers
Place of exchange	Local market	Local and extra-local markets
Consumers	Local (also the tourist, but it is not the initiatives' target)	Local and distant (migrants, rural tourists, responsible/aesthetic trans-local consumers)
Actors	Civic society and social movements	Local institutions and producers associations
Certification	Not so important (also contested)	Important
Limiting factors in the knowledge system	Local lay knowledge needs to be rebuilt	Local lay knowledge needs to be revitalised through connections with managerial and scientific knowledge

*Source: Fonte (2010a: 268).*

## Methodology

The purpose of this study is to analyse the experiences that different local food producers have with increasing sales of their products. In this connection, we are interested in mapping their business models and the barriers and opportunities that small local food producers see in relation to increasing sales of local food products.

The research design for this study is a holistic, multiple case study (Yin, 2009). Cases will include producers of locally grown and processed foods and other important stakeholders in the Danish market for local food products. Cases were selected using a combination of purposive sampling and snowball sampling (informants were asked to identify cases they consider interesting and that have inspired their own practices). Criteria to be used for purposive sampling include:

- *Value added.* Both companies marketing low value-added products (typically unprocessed produce) and companies producing and marketing high value added products (typically processed food products) were studied.
- *Shelf life.* Fresh produce with short shelf life raises particular logistical challenges and it is thus relevant to study companies marketing products with different shelf lives.
- *Company size.* Micro companies (less than 10 employees), small enterprises (less than 50 employees) and medium-sized companies (less than 250 employees) will be studied. Producers of local food products are often very small, hence it is interesting to compare micro companies with companies that have managed to grow.
- *Ownership form.* The existing literature documents the prevalence of alternative ownership forms in alternative food networks.

Empirical data were generated through a combination of semi-structured narrative interviews (Kvale and Brinkmann, 2008, Mishler, 1986) and documentary materials. Interviews have so far been conducted with 10 senior managers from producers of locally grown and processed foods, two food networks and a national association of food producers and other important stakeholders in relation to local foods in Denmark (see Table 2 for an overview of the producers in our sample). The interview guide used in these interviews covered various themes in relation to the firm, its market offering, business model, market, marketing channels, marketing activities, external factors, growth strategy and sources of inspiration.

All interviews were recorded and subsequently transcribed verbatim. Transcripts were read thoroughly and then analysed using coding and categorisation (in N\*Vivo) in order to identify common patterns, similarities and differences between cases.

In addition to these interviews, we collected and analysed relevant documentary materials such as market reports, company reports, websites and marketing materials of the firms in question.

## Preliminary findings

In this section, we summarise our initial findings and impressions of some of the major themes identified in our empirical material.

### *Identity and history*

The SMEs studied represent different sectors within the food business and have different identities, histories and approaches to developing their business. However, high quality production and quality products are central to how they see themselves, i.e., to their identity, and efforts to build a market for either highly specialized products or high quality products. Their perception of quality focuses on taste or sensory qualities, as these comments from two informants illustrate. The first from an employee of a national association of food producers, the second from a producer of local foods:

*"Its most often a husband or wife – depending on who has a flair for it. But in reality it's a person who focuses on the product and production – someone who focuses on – I can make this and it tastes really good. The idea is not necessarily I can make a product that I can sell, but I can make a product that tastes really good. It's quality more than anything else."*

*"And sometimes people have a tough time with this – our product has a taste. That's what has been our motivation factor – taste."*

The histories and identities of the studied firms are tied to a certain amount of resistance to traditional market structures (especially mass retailing and catering) and an active search for alternative market structures; new ways of doing things and finding new ways to the market. Ironically there is very little mention of local food or re-localisation as a principle, and where it is mentioned it is associated with a certain amount of scepticism, that "local food" is a fad and will be expropriated by mainstream influences, as this quote illustrates:

**Table 2** Description of companies studied and their channels

Producer	Description	Channels										
		1	2	3	4	5	6	7	8	9	10	11
1	Small producer of organic meat and meat products	x	x		x		x	x	x		x	
2	Organic ice cream producer, produces special dietetic ice cream	x			x			x			x	x
3	Producer of honey and manufacturer of specialized honey	x	x			x		x		x		
4	Producer and processor of fish roe and export of fish roe	x						x				x
5	Organic salt water aquaculture, mainly fresh sea trout and both warm and cold smoked sea trout			x	x					x	X	
6	Carrot packing and processing, convenience for food service and detail. Producer owned	x						(x)				
7	Organic meat production, processed meats and meal service	x	x		x	x			x	x		
8	Organic farm store		x		x							
9	Manufacturer of dried fruit products, fruit bites and fruit rollups	x						x				
10	Speciality fruit wine producer	x		x								

*Note: The Channels: (1) retail, (2) on farm store, (3) specialty store, (4) restaurant, (5) cooperative agreement, (6) a bon, (7) wholesale, (8) internet, (9) local market/farmers market, (10) direct to institution, (11) export.*



*“SuperBrugsen [a major Danish supermarket retailer] is all excited about buying local. And that’s why we have come into the picture, otherwise it’s just too difficult for them to source such small amounts... It will continue, but they [the retailer] will more or less set the agenda for what they want and at what price. This will also become more centralised.”*

Many of the respondents refer to some form “idealism” – such as organic production and Danish craftsmanship – as a driving force for how and what they produce, but also that they are businesses and that increasing production and sales volumes can be necessary in order to survive as a business.

*“Then we saw an opportunity, and when we looked at it more closely, we saw that we could both produce quality and organic at the same time.”*

The backgrounds of our informants and their point of entry into the local business are varied, including many different approaches ranging from professional entrepreneurs, to more traditional food business developing a highly specialized niche product, to large scale operations developing products to differentiate themselves in an increasingly saturated market with increasing price competition.

*“Yes and this is where we hang on, we go direct to the customer. We cut some corners [in relation to distribution]. We go direct to canteens and institutions instead of through wholesalers – so we can compete on price. Just think about the mark up at wholesale. Basically it’s price that’s our biggest challenge.”*

A number of the SMEs have also moved from primary production to light processing to diversify their revenues and capture a larger share of the value chain (added-value).

*“That’s it. That’s why I say, price is the deciding factor. If we can’t get the right price, it doesn’t work. It’s a very simple calculation. Our employees don’t quite understand it yet, but it’s very simple. We have to be better quality, we have to be more creative and rational, and be good at creating value to compete. Otherwise we don’t have a chance...”*

### *Key partners*

Several of the small local food companies that we studied are participating in various inter-organisational relationships and networking activities. An important reason is that they (as expected) do not have access to the necessary resources and competences internally and therefore often have to look externally. For instance, some companies are looking outside their company for help to solve product or/and production issues and some firms for more strategic reasons. Several companies ask other companies in the same industry for advice then they have questions about how to export, and few when they find the HR-function difficult to handle. Other firms look externally to get financial consulting.

Many companies are a member of or are consulted by different organizations representing the interests of organic farming. Some companies are in contact with universities and other research institutions because they lack knowledge about very product specific areas or are involved in different innovation projects. Several of the small and medium-sized companies have then cooperated with external partners, including universities, research institutions, consultants and companies that operate in the same industry. The variety that one company’s network activities can take is illustrated by the following statement:

*“Yes, we do and we have actually done all the time. I can only recommend people to do that. First, we had a process with the organic farming association, where we worked with design and products and what*

*our story was. Then we had a strategy process with Smagen af Nordjylland [The Taste Of North Jutland, a regional network of small food producers] ... we have also have had a cooperation with a botanist about wild herbs. We have wild garlic, and we also had some cooperation with another chef. Now, we are in a new process with Økologisk Landsforering [Organic Denmark, an association covering organic farmers, processors and consumers]. It is in relation to our Irma products. We also have something about our business with a consultant, who is on our board, helping us develop a business plan, so that we can become attractive to an investor.”*

Several small companies point out that they are often caught in the short term and “day to day activities” and only rarely have the chance to get away from this. This temporal challenges means that the small companies we studied often do not have time for activities oriented towards the future, including long-term strategic work and development of the respective company's products and business in general.

Network activities can be divided into very short term – “I have a question-based networking” – too more long term networking. When participating in more long term network activities, companies express that they have the opportunity to discuss various professional issues and spar with each other about the challenges they face. However, several informants emphasize that the time is often also a scarce resource in relation to networking activities and that they typically do not have the time to attend many networking activities.

What are the types of issues discussed with external partners? One of the issues is product development, although only few of the regional food companies have collaborated with value chain partners on product development. Several seek external partners outside of their value chain (universities, consultants and other research institutions) for very product-specific knowledge, others see the development process a very internal process. Thus one company has developed a new product to a new segment only because they happened to be contacted by a person from the same industry, who asked whether they could produce the product. Another issue is exports, as some informants state that they have discussed issues concerning start-up of exports with people from there own industry:

*“I don’t know what you do ... Then there is this with currencies back and forth, and if I were to send a pallet off. But I can just call Marianne and Peter in Faaborg, they do it all the time ... They export a lot ... Yes. So, it’s: What the hell do we do? And they send their cheeses to Japan.”<sup>9</sup>*

Some of the SME’s studied collaborate with universities and other research institutions. For instance, one informant states that being incontact with universities allows him to know what is going on, others see it as an advantage that universities can help them with different production and product challenges. However, some of the informants are of the perception that there is generally a lack of knowledge-sharing between universities and the small and medium-sized companies. One informant thinks that it previously was much easier to be consulted by universities in the past (20 years ago), because now they often have to participate in a more long-term research project to get any consulting. Companies typically do not have the time for this when they face day-to-day challenges.

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<sup>9</sup> Names have been changed to ensure anonymity.

### *Authorities and regulation*

Food safety legislation and control was mentioned as an important barrier for the SMEs relating to both entry into new markets and developing new products. For microenterprises, the control costs were appreciable - *"any extra costs for a microenterprise are appreciable."*

In general, relations with food safety inspectors were described as being good, but there was a general dissatisfaction with the complexity of regulation and the inspector's own inability to navigate this complexity and provide relevant information. Several respondents indicated that a more "consultative" and less "policing" role would be desirable and facilitate their growth/development. This is illustrated by the following remark:

*"The most difficult part of starting a business in Denmark is all of the rules and paragraphs – everything you have to do alongside running the business. It's your duty as a business operator to find out for yourself."*

A lack of consistency and coherence in control and legislation was mentioned, and reference was also made to the influence that large enterprises have on setting standards and norms relating to both food safety legislation, labelling and quality standards. This was referred to as a "closed party", i.e. large companies setting standards and norms that make it difficult for SMEs to access the market on equal footing. It was mentioned as being a barrier for SMEs.

At the same time, informants indicated that Denmark's high standards for food security and its history in organic production and certification is a positive factor in relation to gaining a foothold on lucrative export markets such as China.

*"It is simply crazy [in a positive sense] in terms of food safety legislation. We have been allowed to – when the food authorities pay us a visit then they are really fair. Really good. Of course, they make demands, but that is the reason that we [i.e., Denmark] are looked upon as being good food producers. Because food safety is in place, and in a way this has become our quality brand."*

However, there was an indication that food safety and control mechanisms are based on distrust and that more emphasis could be placed on authorities having an advisory role or on extension services and that legislation can be a barrier to developing innovative distribution and sales channels.

### *Ways to market – marketing and sales channels*

The local food producers studied use a variety of ways to market their products. On the one hand, some try to use the traditional marketing channels to distribute their products, including the supermarkets dreaded by some informants. On the other hand, considerable effort goes into developing alternative channel structures, in part to overcome difficulties in dealing with retailers and other traditional channels. To a large extent, these efforts are characterised by improvisation and a trial-and-error approach as local food producers experiment with different ways of distributing their products and with targeting different types of customers (end-customers, intermediaries, caterers, restaurants, etc.).

Starting with traditional channels, surprisingly many of the regional food companies studied sell their products in retail chains given the antipathy expressed towards large-scale retailing by some informants. Some of the companies interviewed sell their products to several chains belonging to

the Coop group<sup>10</sup>, while others only sell to one of the chains. In particular, several of the companies studied sell their products in Irma. Other companies sell their products in single retail shop and are therefore not selling their products nationwide. Especially Coop is seen to enable regional food companies to sell their products into a single or multiple local retail stores:

*"It's only Irma that we deal with centrally. With the other [retailers] it is local. So with SuperBrugsen and Kvickly it is locally. This means that we deliver to the individual store. This is not sustainable in the long run. Either it becomes too expensive for them or us."*

However, several of the interviewees mention that it is difficult for them to get into the retail chains. Likewise, there is a common understanding among the regional food producers that not all regional food should be sold in retail chains, mainly because retail chains have too much power, which means that it is difficult for regional companies to make a financial profit. This is mainly due to very strict purchasing agreements and the tough price and shelf competition:

*"To get into the supermarkets? I don't think so. We have tried a few times, but it will never be a great success for us."*

*"It's very difficult to get into those big stores. They are managed centrally, and they have some buyers who are really good at buying. First they rip you off to get through the door, and then you almost have to pay to get on their shelves ..."*

Some of the regional food companies also sell their products to day-care institutions and canteens. In this context, one informant said that institutions in general buy large quantities and at the same time are very flexible. On the other hand, some companies find it difficult to deliver to industrial kitchens, because they often use catering suppliers that typically have a standardized product assortment. The same informant emphasizes that these kitchens should put pressure on catering suppliers so they take regional foods into their product assortment.

*"But I do not consider the logistics to canteens and institutions as a problem. They take so large quantities at a time that it is not a problem. Especially with institutions it's ok with that we make deliveries at 3 pm."*

Several of the regional food companies studied also sell their products directly to consumers, to restaurants, at specialized shops, farm shops and/or at local markets. Speaking of markets, one informant emphasizes that it has become harder to sell the products at markets because many of these are being closed. One also expresses some skepticism about selling regional foods at the established food markets in Copenhagen. This is because the producer has a hard time identifying with the market, and revenue is not corresponding with the price of a stand.

It is noteworthy that several of the smaller companies distribute products to the point of sale (supermarkets, farm store) or restaurants themselves:

*"We distribute with our own truck – so far ... We deliver three to four times a week. We have two trucks. And deliver directly to customers ... but we combine with wholesalers."*

It is also characteristic that small regional food companies, sometimes by themselves distribute the goods to the private customer. Typically, these small companies are experiencing distributional issues. Several of the small companies are thus, so to speak, vertically integrated, as they perform functions along large parts of the value chain, even though this means going

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<sup>10</sup> The Danish Coop group operates several retail chains: Fakta (a soft discounter), Dagli' Brugsen, LokalBrugsen (superettes), SuperBrugsen (supermarkets), Kvickly (larger supermarkets) and Irma (upmarket supermarket chain).

beyond their core competencies. However, this is out of necessity rather than choice and these companies stress that in the long run it is not sustainable for them to distribute by themselves.

Other companies, often the medium sized, typically deliver their products into a central warehouse from which the distribution to individual stores takes place. Typically, the medium-sized companies have an agreement with a distributor that collects the goods and deliver them into a central warehouse:

*“So we drive the goods to a central warehouse, where they take the ordered product from the stock ... The products are stored in their warehouse, but it is us who own them.”*

Some of the food SME's have joined forces, taking turns distributing each other's products. In these communities it is also characteristic that they are helping each other to create new customer contacts.

Some regional food producers sell each others products. For example, local farm shops are contacting a regional food producer because they want to sell her products. Also one company had previously an agreement with another manufacturer (cosmetics) concerning selling each other's products at markets. However, this was not fruitful cooperation.

Remarkably very few of the regional food producers sell their products via the Internet. The argument for not using the internet as sales channel is mainly that food often has a relatively high weight, why the distribution costs are relatively high compared to the price of the product.

One of the small companies, which distributes by themselves, will soon be giving this part over to Post Denmark. The main reason for this is the vast of time and money. Instead, the same informant emphasizes the importance of focusing on core competencies. Several of the other small companies use Post Denmark as a distributor. Also, it is very important to note that for many food producers, distribution costs are often relatively high compared to the price of the product.

Thus, several small regional food companies are experiencing great challenges in distributing their products. For instance, a company had to say no thanks delivering to a new customer because of distribution and logistics difficulties. However, the customers had the opportunity to pick up the product by themselves:

*“Distribution is the other major problem. We have some restaurants in our neighborhood, and we deliver to Copenhagen once a week, where we service those [restaurants] that we can. But if Søllerød Kro [located outside of Copenhagen] ring and say that they would like to have some fish, then we say yes, if you can pick them up yourself or have a wholesaler that we can deliver to. Otherwise we can not manage it. So when we get four inquiries, we can say yes to one, but have to say no to the other three. Because distribution is a problem.”*

Another major theme when debating distribution with small or medium sized regional food companies is the rules about the “cold chain”. Some small companies have iceboxes in their private cars and distribute the products in this way. The rules about refrigeration of food are important for these manufacturers. Because the rules about product temperatures are different depending on whether products are distributed to private consumers or to sales channels, local food producers distinguish between the consumer or a store/restaurant etc.

### *Growth strategies (or lack of) of local food producers*

One of the main focus areas of this study was to examine barriers and opportunities for growth in SMEs. The interviewed food businesses perceived growth differently. Not all of the interviewed micro and small food businesses perceived growth as a desirable goal in itself and many were concerned about how growth would affect their profit margins and the quality of their products. Maintaining the quality of their production/products was paramount for the interviewed businesses and all expressed concern about how growth would affect this. In fact, many indicated that they would be pleased if they could more effectively utilize their production capacity.

Both micro and small enterprises indicated that growth would require an investment in facilities, machinery, technology and/or human resources. For microenterprises this step was perceived as risky, i.e. would the increased volume outstrip the investment? Both micro and small enterprises indicated banks and other financing forms had become more conservative in taking risks, and that “risk friendly” capital was increasingly difficult to find.

Several of the respondents indicated that (public) catering was an interesting market, but this market was often dominated by large wholesale operations that didn’t necessarily see the value of sourcing foods from SMEs. For this to be an operable strategy, outside pressure from national, regional and local government *vis à vis* procurement policy would be necessary.

Only two of the interviewed SMEs were active in export markets, and although, generally speaking, informants saw export markets as an attractive alternative to domestic markets, they were uncertain whether this was a viable option due to costs associated and necessary knowledge and networks.

### **Discussion**

High quality products and sustainable (often organic) production processes are important to the local food producers that we have studied. Far from all of the firms have growth ambitions or indeed view growth of their firm as desirable, as they fear that this would affect the quality of their products negatively. This is anathema to all of the firms studied. In many cases, growing the firm would require significant investment in facilities, machinery, technology and/or human resources, something that was viewed as risky and again potentially detrimental to product quality.

The small food producers studied struggle with problems in relation to product development and the distribution of their products. In relation to the latter issue, a variety of different ways to market are used. This includes both alternative channels (farm stores, direct selling, markets) and traditional channels like supermarkets. So even though small local food producers often vilify major retailers, many of the firms we studied sell through them to a greater or lesser extent. Setting up physical distribution is a particularly important challenge for small food producers, who sometimes collaborate in this area, and have to be creative in order to accomplish this.

The small local food producers studied have limited resources, both economic and human. They have to make do with what the resources (in terms of man-power, know-how, finances, logistics, etc.) they have at hand in their organisation or can access through their network.

One way to look at the entrepreneurs in charge of the small local food producers we have studied is to see them as *bricoleurs* (Lévi-Strauss, 1966; see also Baker and Nelson, 2005). In Claude Lévi-Strauss (1966) original formulation, *bricolage* constitutes a mode of practical engagement

with the world. Lévi-Strauss (1966) describes the *bricoleur* as a ‘craftsman’ capable of performing a large number of diverse tasks using the tools and materials at hand. Lévi-Strauss contrasts the bricoleur with the designer or engineer, who develops solutions to problems based on a scientific, rational approach to knowledge where the problems specify requirements for particular skills, tools and materials. The bricoleur’s set of means, in contrast, cannot be defined in terms of a particular project, only by its potential use. The elements of this set of means “are collected or retained on the principle that ‘they may always come in handy’” (Lévi-Strauss, 1966: 18). So instead of representing a specific function in relation to a specific problem, the bricoleur’s tools are not fully specified and each element represents “a set of actual and possible relations” and they can be used for any operation of a certain type within a certain area (Lévi-Strauss, 1966: 18). When confronted with a problem, the bricoleur questions what each element is his set of means signifies in relation to the particular problem at hand, and thus they are interpreted differently in different situations.

Lévi-Strauss (1966) does not himself provide a clear-cut definition of bricolage. Based on a review of the multi-disciplinary literature that has subsequently used the concept, Baker and Nelson (2005: 133) in their discussion of entrepreneurship develop an integrative definition of bricolage as “making do by applying combinations of the resources at hand to new problems and opportunities.” Baker and Nelson (2005: 134) note that ‘making do’ is normally taken to imply “a bias toward action and active engagement with problems or opportunities” over reflections about whether a workable outcome can be produced from what is at hand. Conversely, their own research suggests that entrepreneurs frequently consciously disregard the limitations of widely accepted definitions of material inputs, practices, definitions and standards, instead insisting on trying out new solutions, observing and dealing with the consequences (Baker and Nelson, 2005).

That the informants from small local food producers that we have studied have make do with the resources that are readily available may be a result of imposed scarcity of resource found in the rural and depleted areas where some of these businesses are located, or because of the entrepreneurs being ideal-driven (organic production and the craftsmanship involved in the production of their productions is important to many of our informants), but may also be a self-imposed constraint – similar to what Sarasvathy refers to as effectuation. According to Sarasvathy (2001) even experienced entrepreneurs with ample access to external financing seek to create opportunities from the means available.

The concept of bricolage thus incorporates a very broad understanding of resources as well as of what ‘at hand’ implies. The resources of the bricoleur encompass any element that may serve as a means to achieve an end, and may include both material objects literally at hand and symbolic resources such as culturally familiar narratives or images. Similarly, at hand encompasses both the literal sense of the word, as in the carpenter having a hammer at hand, and the manner in which symbolic resources are available to skilled participants in a given culture (Swidler, 1986). In relation to the production and marketing of local food, symbolic resources include discourses related to place or origin of the products or to the production processes (e.g., organic or craftsmanship).

Any bricoleur can thus be seen as having a set of tools and materials available – both material and symbolic – that he or she may draw on in the various practices he or she engages in. Bricoleurs differ with regard to their skills in using these tools to cope with the demands made by the multiple, interpenetrating systems and subsystems they are immersed in (De Certeau,

1984). Skills, understood as capabilities of action and perception, are developed through training and in particular through the bricoleur's active, practical engagement with her environment in a network of social relations in the performance of particular tasks (Ingold, 2000).

Parts of the environment are idiosyncratic to the individual, while other parts are idiosyncratic to the various practices, organizations and institutions in which the individual is immersed. However, the idiosyncrasy of the resource set does not reside only in which resources a particular individual has access to, but also to how the resource set is interpreted. In their formulation of bricolage, Baker and Nelson (Baker and Nelson, 2005) extend Penrose's (1959) claim that resource environments are idiosyncratically constructed. While Penrose argues that resources are idiosyncratically perceived, Baker and Nelson extend this by suggesting that firms differ significantly with regard to their ability to make use of particular resources. The potential uses or value of resources are fundamentally indeterminate and depend on the network of relations in which they are engaged. Resources do not have an objective and predetermined set of uses or value that people may have more or less accurate perceptions of. The resource environments of particular companies are idiosyncratic and are constituted through active engagement with the environment in networks of social relationships. This is something that we want to explore as we analyse our data further.

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# **Italian And U.S. Consumers Of Local Foods: An Exploratory Assessment Of Invariance**

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## **Abstract**

The exploratory study reviews locally produced foods and sustainable retailing via grocery outlets across two distinct consumer groups, Italian and U.S. consumers. Survey methodology and structural equation modeling was used to test for measurement and structural invariance across the groups. Results suggested that groups varied across measures of perceived consumer effectiveness and purchase intentions, and constructs of subjective norms, perceived consumer effectiveness, connectedness, and purchase intentions reflected factor mean differences across groups. Tests of structural paths were found to be partially invariant. Implications to retail grocers who source sustainable products are provided as well as future research directions for academics.

*Keywords:* Locally produced foods, grocery, sustainable retail, invariance test

## **1. Introduction**

The world-wide agri-food system continues to be dominated by large industrial operations as evidenced by the fact the “the ten largest U.S. based multinational corporations control almost 60% of the food and beverage sold in the U.S.” (Lyson, 2007, p.21). In spite of this in the last few years, an interest in local food has been increasing worldwide (Vecchio, 2010). Research conducted in the U.K., U.S., Italy and other European countries have identified local food products as a choice that consumers are appreciating and willing to pay higher prices for (Giraud et al., 2005). Consumers now demand food that comes from a source other than industrialized processing plants (Henseleit et al., 2007). Additionally, research has suggested that consumers purchasing food produced in their local areas experience a wide variety of benefits (Guptill and Wilkins, 2002) related to health and the environment.

In Italy, for example, the concept of ‘Slow Food’, or a pushback to this proliferation of small farms by larger multinational companies, has supported a more traditional and environmentally-friendly form of producing, growing, and preparing food (Gaytan, 2003; Martinez et al., 2010). This movement, thought to have begun in the 1980’s, argued for a slow and oppositional view to the current fast-paced lifestyle that was emerging throughout Europe and in relation to food issues, was creating a homogenized and standardized food system that impacted small farms, artisans, and farmers (Leitch, 2003). Research on Italian farmers’ market patrons and vendors (Black, 2005) also suggested various levels of acceptance to additional food outlets within the local community; some consumers welcomed the clean and fresh outlets for local products that grocery stores provide while others preferred the farmers’ markets as a social gathering place where the products can be discussed and relationships formed with vendors.

In the past, emphasis in a grocery store within the United States was on packaged goods with perishables taking on an auxiliary role. Today, with consumers showing an increased interest in fresh produce and other fresh food and knowing where their food is produced, the emphasis has shifted (Guptill and Wilkins, 2002; Kumcu, 2013). Grocery retailers have responded by contracting with local producers and growers to provide a variety of locally grown or produced food. Out of the top 10 grocery retailer websites in the U.S., seven listed local foods on their websites (Martinez et al., 2010).

While limited research on locally produced foods has considered group differences such as Hispanic and Caucasian shoppers across a number of consumer behavioral variables (Campbell, 2013a; 2013b), lifestyle segmentation (Nie and Zepeda, 2011), or food chain analysis of products across various countries within the European Union and beyond (Edwards-Jones et al., 2008), there is a paucity of research regarding consumer behavioral responses to sustainable production within the locally produced food category across worldwide countries. The closest recent attempt was made through research by Fonte (2008) and Holloway et al. (2007) that considered local food perspectives within North American and Europe, and as noted by Vecchio (2010, p.124), “there is a fairly clear distinction between the North American and European perspectives on local food, the former being based on the principles of social justice and environmental sustainability, the latter focused mainly on incorporating small rural farms and marginal agricultural economies into economic development”. Yet, the role of attributes such as attitudes, normative influences, connections to producer and or environment, and perceptions of behavioral effectiveness relating to purchase behavior were not addressed within these studies. To this end, our study fills a gap by considering two distinct countries where local foods are prevalent: Italy and the U.S. The goal of our study is to address the following research question:

*RQ: Will consumer factors such as attitudes, normative influences, connectedness, perceived consumer effectiveness, and purchase intentions vary across Italian and U.S. consumers of locally produced foods?*

Using the contextual framework of the theory of planned behavior (Ajzen, 1985), our study will provide a first step in reviewing how consumers view and respond to environmentally-friendly/sustainable foods in two countries where local foods are at different points of acceptance and the level of socially responsible retailing varies; in Italy where locally produced foods are the norm and have been widely accepted since the Slow Food movement in the 1980’s as part of a push toward agriculture sustainability and in the U.S. where locally produced foods are becoming more mainstream over the past decade throughout retail grocery, farmers’ markets, and community supported agriculture. By reviewing group differences of local food consumers in various parts of the world, marketers can better understand the particular drivers to local food acceptance and create more targeted messages for consumers, while also considering how consumers view sustainable production, environmentally friendly-categories such as locally

produced foods, and retail outlets (e.g., grocery versus farmers' market) as more or less important. Finally, the study will help to determine which factors are positively related to purchase intentions, thereby creating opportunity for businesses to highlight their commitment to social responsibility through support of small local farms while creating an even higher level of interest in locally produced products moving forward by consumers.

## **2. Literature review**

### *2.1. Food and the Italian consumer*

Italian consumers place a high importance on food, and have been identified throughout the world with a sophisticated culture of food (Brunori et al., 2013). The relevance of food for Italians is also evidenced by the acknowledgement that the Slow Food movement was created in Italy in 1989 by Carlo Petrini and Folco Portinari. The Slow Food movement focuses on the enjoyment of quality food and supports traditional, local and artisanal foods. The Italian Ministry of Agriculture recognized local food, artisanal manufactured and traditional products as priorities and have become extremely relevant to the Italian food system (Ventura et al., 2006). Italians also believe their local produce and dishes are superior (Fort, 2010) and are culturally devoted to local products. This sensitivity towards local food production, very related to a specific territory, is also highlighted by the number and development of geographical indications (GIs) reached in Italy. Compared to other European countries, Italy has the largest number of geographical identified products both in food (N. 248) and wines (more than 500), equal to 22% of the overall European Union geographical identified food market in 2012 (Ismea, 2013). This is also supported if we examine the knowledge that Italians possess regarding these types of products compared to other European Union countries (European Commission, Directorate-General for Agriculture & Rural Development, 2012). The EU barometer on food shows that Italians possess a degree of knowledge of GIs, namely Protected Destination of Origin (PDO) and Protected Geographical Indication (PGI), across products that is more than double (36%) compared to the average European citizen (14%) respectively (European Commission, Directorate-General for Agriculture & Rural Development, 2012). Additionally, this report provided evidence that the importance Italians give to food origin is one of the highest in the EU (88%) versus a 71% average for other EU consumers.

According to the Censis Report (2013), the current economic slump has fuelled the spread of outdoor and farmers' markets in Italy, which now include more than 36,000 food vendors spread

across 234 farmers' markets. These numbers have grown by 13% since 2008 (Mingozzi and Bertino, 2013) and 15 million Italian consumers have purchased through farmers' markets in 2013, reflecting an increase of 67% of sales within this channel (Fondazione Campagna Amica, 2014). Moreover, a recent Nielsen (2013a) survey noted that Italians buy and consume more fresh food than the rest of EU citizens and tend to buy more from green grocers (20%) compared to the EU average (11%), with the main reason being cited as freshness (38%).

## *2.2. The U.S. local food consumer*

With the increase in purchasing channels for locally produced foods, consumers now more than ever in the U.S. have choices on where to spend their money. The local food market, expected to produce more than \$11 billion in revenue annually (Jones-Ellard, 2011), includes over 8,100 farmers' markets (United States Department of Agriculture Agricultural Marketing Service, 2013) and retail food companies such as Safeway, Delhaize, and Ahold that include the purchasing of locally produced items within their corporate social responsibility reports and company frameworks (Martinez et al., 2010). Walmart has pledged to source and sell over \$1 billion from small and medium sized farms in what they determine as emerging markets, and also help with the marketing and production of various local produce from these farms (Clifford, 2010). Other companies such as Whole Foods Market have continued to leverage practices such as organic, locally produced sourcing, and the ethical treatment of animals as a way to create a sustainable competitive advantage over other grocery retailers and gain the consumers trust and patronage (Johnston, 2008). U.S. consumers are seeking local products for a number of reasons. Citing higher quality, a desire to support local economies and small farms, health and food safety benefits, effectiveness that their personal efforts can help solve social or environmental problems, and a push toward greater environmental stewardship (Maretzki and Tuckermanty, 2007; Thilmany McFadden, 2012), U.S. local food demand is helping to push these items more mainstream into culture. Grocers, restaurateurs, and other providers therefore have an opportunity to capture a growing segment of the population that seeks to better understand where the products are coming from and perceive this category as safer to eat (Darby et al., 2008).

## *2.3. Defining 'locally produced'*

While the Slow Food Movement has included over 40 participating countries with over 70,000 members (Jones et al., 2003), the concept of 'locally produced' across nations continues to



remain abstract. Within the U.S., an attempt was made by the Department of Agriculture to assign a geographic boundary in 2008 by suggesting a total transport distance of less than 400 miles from origin or the state in which it is produced (Martinez et al., 2010). Yet, research by Campbell (2011) determined that U.S. consumers often confuse the concept of 'local' with 'organic' production. The USDA has also defined local food as including various marketing channels such as direct-to-consumer (farmers' markets or community supported agriculture) and inter-mediated (direct-retail grocers/restaurant-consumer) channels (Low and Vogel, 2011). Prior research has generally considered the concept of local through the lens of sustainable agriculture (Gottlieb and Fisher, 1996) and agrifood systems that included concepts of community embeddedness and social relations (Jarosz, 2000), yet a universal definition of how consumers interpret and process the concept of local remains unknown and provides researchers an opportunity to explore definitional variations by country. We can suppose that in Italy, a country where foods and even dialects change within a few kilometers, local means food produced in the area of a given township, whereas in the U.S. local often means foods originating in a given state. To frame the current research, therefore, consumers across both countries were allowed to determine their own interpretation of what local means to them and use this interpretation in answering questions.

#### *2.4. Theoretical foundations and hypotheses development*

Theoretical foundations from the theory of planned behavior (Ajzen, 1985) help to frame the current study on consumer traits of attitudes, normative influences, and connections as they relate to purchase intention outcomes. Across food related research, particularly in the locally produced and organic categories, studies by Bissonnette and Contento (2001), Robinson and Smith (2002), and Vermeir and Verbeke (2006; 2008) all suggested a significant positive relationship between attitudes and normative influences on sustainable product choices like those locally produced. Therefore we posit that:

*H1: There is a significant relationship between consumer attitudes toward locally produced foods purchasing and purchase intentions across the Italian and U.S. samples*

*H2: There is a significant positive relationship between subjective norms relating to locally produced foods purchasing and purchase intentions across the Italian and U.S. samples*

Perceived consumer effectiveness was first conceptualized by Kinnear et al. (1974) as a person's belief that an individual's actions can have an effect on environmental issues such as pollution. Subsequent research by Roberts (1996), Thilmany et al. (2008) and Vermeir and Verbeke (2008) suggested that consumer effectiveness can lead to various positive behavioral outcomes such as motivations and purchase intentions for buying local food items. Provided that consumers believe they are making a difference with their purchases for locally produced items, we believe that behavioral intentions will also be affected. Therefore, we posit that:

*H3: There is a significant positive relationship between perceived consumer effectiveness relating to locally produced foods purchasing and purchase intentions across the Italian and U.S. samples*

Connectedness has been defined within the literature as “An attribute of the self that reflects cognitions of enduring personal closeness with the world” (Lee et al., 2001, p. 310). As a function of local food consumers, connectedness describes the actor involvement in agri-food system networks that can include relationships with the environment, other food consumers, the place of purchase or the product itself (Campbell, 2013a). The effects of connectedness on behavioral outcomes, however, remain mixed and relatively underexplored. Research by Holloway and Kneafsey (2004) suggested that connectedness brings people, process, product, and consumption into one integrated framework to positively affect demand. While Campbell (2013b) found that Hispanic and Caucasian consumers reflected different mean levels of connectedness with respect to local food purchasing, Campbell (2013a) determined that with respect to actual purchase intentions, connectedness was not a significant predictor. Overall, it is generally believed that local food consumers who see themselves as connected to the environment (Feagan, 2007), to place such as farmers' markets (Hinrichs, 2000), or the individual growers/farms (Groc, 2008) will exhibit greater purchase intentions for locally produced foods. Therefore we posit that:

*H4: There is a significant positive relationship between connectedness relating to locally produced foods purchasing and purchase intentions across the Italian and U.S. samples*

#### *2.4.1. Multi-group comparisons of local food consumers*

Limited within much of the prior research on locally produced foods has been group comparisons or cross-cultural perspectives. Chen (2007) considered sustainable food choice in Taiwanese consumers, Vermeir and Verbeke (2006; 2008) utilized a Belgian sample, and both Bissonnette and Contento (2001) and Campbell (2011) utilized a U.S.-based sample in evaluating locally produced food consumers across various attributes and determined that a significant relationship occurred between attitudes, subjective norms, and purchase intentions. However, these approaches did not address potential effects related to cultural differences. Oreg and Katz-Gerro (2006) in a multi-country study on predicting pro-environmental behaviors did suggest that constructs such as attitudes and intentions could be successfully validated as invariant, and found that in general the theory of planned behavior could be useful in cross-national research across multiple countries. Italy, however, was not one of the countries reviewed within the study and provides a new context in which local food research could be extended. Given the identification with, and integration of, food within the Italian culture (Brunori et al., 2013), the cultural experience with the ‘Slow Food’ movement relating to local products over a number of years and the relevance of local foods to the entire Italian food system (Ventura et al., 2006), and the previously noted sensitivity of Italian consumers toward local products and geographical identifiers of food (Ismea, 2013), we suggest that Italian consumers of local foods will exhibit significantly different attitudes, subjective norms, perceptions of consumer effectiveness, and level of connectedness with outcomes such as purchase intentions than other consumers such as those from the U.S. where local food systems are still evolving. Therefore, we posit that:

*H5: Italian consumers reflect different effects than U.S. consumers on the following proposed path relationships:*

*H5a: Attitudes → Purchase Intentions*

*H5b: Subjective norms → Purchase Intentions*

*H5c: Perceived Consumer Effectiveness → Purchase Intentions*

*H5d: Connectedness → Purchase Intentions*

### **3. Methodology**

Within our conceptual framework, the aim of our study was to investigate potential group differences between Italian and U.S. consumers, relative to locally produced foods, across factors

relating to attitudes, subjective norms, perceived consumer effectiveness, connectedness, and purchase intentions. Two version of the survey were created, one in Italian for the European sample and one in English for the U.S. sample. The English version of the survey was translated by researchers in Italian and then back-translated into English. Differences between the Italian and English versions were vetted by the researchers in both locations, with changes to questions made as necessary. The sample included consumers in the U.S. who indicated they had purchased locally produced food at a grocery store during the past twelve months and in Italy during the past six months.

### *3.1. Data collection*

For the current study, data were collected in two ways; For the Italian consumers, surveys were hand administered and collected by researchers approaching interviewees in the main streets of a number of different Italian towns, as Internet surveys are not customarily utilized in the country. For U.S. consumers, given that a national sample was desired for generalizability purposes, Internet surveys were created and administered through the partnership with C&T Marketing, a U.S.-based market research company.

### *3.2. Measurement development*

Measures for the exploratory study were derived using prior academic literature within the marketing, psychology, sociology, agricultural, and retail disciplines. Seven measures of attitudes were created from prior work by Vermeir and Verbeke (2008) and Bissonnette and Contento (2001) relating to sustainable food consumption and food choice behavior. Four of the seven were adapted using a seven-point Likert scale of (1) '*Strongly disagree*' to (7) '*Strongly agree*'. Three of the seven used semantic differential scaling adapted from Vermeir and Verbeke (2008) for the question, 'Purchasing locally produced foods is:' with responses including *Negative/Positive*, *Useless/Meaningful*, and *Unwise/Wise*. The remaining constructs and corresponding measures all utilized a seven-point Likert scale of (1) '*Strongly disagree*' to (7) '*Strongly agree*'. These included five measures for subjective norms adapted from Vermeir and Verbeke (2008), nine measures of perceived consumer effectiveness from the Roberts (1996) study on green consumers and adapted to fit the current context of locally produced food purchasing, three measures of connectedness that resulted from prior literature on alternative food networks and relationships between participants (Coit, 2008; Holloway and Kneafsey

2004), and three measures for purchase intentions also adapted from Vermeir and Verbeke (2008) and Bissonnette and Contento (2001). When answering the survey, respondents were allowed to consider various grocery channels of local food purchasing including national or specialty shops to better generalize the overall findings from the study. Overall, the initial model included 25 measures for 5 independent latent constructs.

### *3.3. Sampling frame*

The sampling frame included respondents in Italy and the U.S., 18 years of age or older. A total of 1055 responses were collected between the two groups, with 304 Italian consumer responses and 751 U.S. respondents. Within the sample, 738 (70%) were Female while 317 (30%) were male. Over half of the respondents (N = 620) were married and 49.2% (N = 520) were full-time employed. Many within the two groups (N = 587) had attained a Bachelor's degree or Graduate/professional degree. Respondents also indicated having more than one person in their household, with two persons (N = 321) and three persons (N = 245) being the largest responses. From the large U.S.-based sample, a randomly generated subsample of N = 304 using SPSS statistical software was created for further group analysis within the study. A comparison of the two groups across demographic variables is provided in Table 1.

**Table 1. Respondent demographic information**

Demographics: Italian (N = 304) US (N = 751)		Italian frequency	US frequency	Italian %	US %
<b>Gender</b>	Female	215	523	70.7	69.6
	Male	89	228	29.3	30.4
	<b>Total</b>	<b>304</b>	<b>751</b>	<b>100.0</b>	<b>100.0</b>
<b>Age</b>	Under 25	17	22	5.6	2.9
	25-34	48	113	15.8	15.0
	35-44	70	156	23.0	20.8
	45-54	86	219	28.3	29.2
	55-64	56	176	18.4	23.4
	65 or over	27	65	8.9	8.7
	<b>Total</b>	<b>304</b>	<b>751</b>	<b>100.0</b>	<b>100.0</b>
<b>Relationship Status</b>	Married	172	448	56.6	59.7
	Never Married	71	145	23.4	19.3
	Divorced	9	76	3.0	10.1
	Partnership	33	49	10.9	6.5
	Widowed	15	26	4.9	3.5
	Separated	4	7	1.3	0.9
	<b>Total</b>	<b>304</b>	<b>751</b>	<b>100.0</b>	<b>100.0</b>
<b>Occupational Status</b>	Full-Time Employed	179	341	58.9	45.4
	Retired	39	108	12.8	14.4
	Homemaker	14	117	4.6	15.6
	Part-Time Employed	35	101	11.5	13.4
	Unemployed	10	70	3.3	9.3
	Student	27	14	8.9	1.9
	<b>Total</b>	<b>304</b>	<b>751</b>	<b>100.0</b>	<b>100.0</b>
<b>Highest Level of Education</b>	Primary (Less than high school graduate)	8	12	2.6	1.6
	Secondary (high school graduate)	40	404	13.2	54.1
	Bachelor's degree	99	219	32.6	29.3
	Graduate degree/ Professional	157	112	51.6	15.0
	<b>Total</b>	<b>304</b>	<b>747</b>	<b>100.0</b>	<b>100.0</b>
<b>Persons in Household</b>	One	46	117	15.1	15.6
	Two	62	259	20.4	34.5
	Three	84	161	27.6	21.4
	Four	64	134	21.1	17.8
	More than four	48	80	15.8	10.7
	<b>Total</b>	<b>304</b>	<b>751</b>	<b>100.0</b>	<b>100.0</b>

#### 4. Analysis & results

Within the study, analysis was completed using SPSS 20.0 statistical software with AMOS structural equation modeling and maximum likelihood estimation. A two-step process outlined by Anderson and Gerbing (1988) included the completion of confirmatory factor analysis and subsequent measurement model creation, followed by a structural model. Invariance testing was completed between the Italian group (N = 304) and a randomly sub-sampled U.S. group (N =

304) across both types of models, following procedures outlined by Byrne (2010) and Steenkamp and Baumgartner's (1998) work on cross-national research.

#### 4.1. Reliability and validity

Reliabilities for the five constructs were calculated using Cronbach's alpha statistic, with values ranging from .714 to .928 and suggesting good overall support by the respective measures. Convergent and discriminant validity were then assessed using the average variance extracted (AVE) calculation for each construct and the shared variance between constructs. Results for AVE estimates were greater than .50, suggesting convergent validity, and shared variance between the constructs (squared correlation values) was less than the average variance extracted value for each corresponding construct, supporting discriminant validity (Anderson and Gerbing, 1988; Fornell and Larcker, 1981).

#### 4.2. Confirmatory factor analysis

Following methods outlined by Byrne (2010), individual confirmatory factor models were created and fit for each of the two groups- the Italian sample and the U.S. sample. Three measures of attitudes (e.g., *'Purchasing locally produced foods is: Negative/Positive, Useless/Meaningful, Unwise/Wise'*) one measure of connectedness (*'When I shop for locally produced foods in a grocery store, I feel like I connect with the environment'*), and one measure of perceived consumer effectiveness (*'When I buy locally produced foods, I try to consider how my use of them will affect the environment and other consumers'*) reflected construct loadings less than .40 or high standardized residual covariances ( $> 2.58$ ) with a number of other construct measures. Therefore, they were dropped from further inclusion within the measurement and structural modeling process. Initial confirmatory factor analysis results for the Italian sample ( $N = 304$ ) suggested good overall model fit ( $\chi^2 = 301.450$ ,  $df = 158$ ,  $\chi^2 / df$  ratio = 1.908, CFI = .950, GFI = .913, RMSEA = .055). Similar results for the individual U.S.-based model ( $N = 304$ ) also confirmed good model fit ( $\chi^2 = 298.611$ ,  $df = 158$ ,  $\chi^2 / df$  ratio = 1.890, CFI = .973, GFI = .912, RMSEA = .054). The measurement items, construct reliabilities, and average variance extracted values are listed in Table 2.

**Table 2. Construct measures with reliability and validity statistics**

<b>Construct</b>	<b>Measures</b>
<b>Attitude toward locally produced foods</b>  $\alpha = .714$ AVE = .613	It is important to me that food I purchase is grown nearby (AT1)
	It is important that people should have more locally grown product available to them (AT2)
	I am worried that local farms are going out of business because most food purchased in grocery stores is grown on larger, faraway farms(AT3)
	It is important that I can purchase my favorite locally produced foods all year long (AT4)
<b>Subjective norms regarding locally produced foods</b>  $\alpha = .887$ AVE = .795	People who are important to me think I should buy locally produced foods (SN1)
	People who influence my buying behavior think I should buy locally produced foods (SN2)
	Friends think I should buy locally produced foods (SN3)
	Society thinks I should buy locally produced foods (SN4)
	My family thinks I should buy locally produced foods (SN5)
<b>Connectedness with locally produced foods</b>  $\alpha = .850$ AVE = .814	When I shop for locally produced foods I feel like I connect with the producer (CON1)
	When I shop for locally produced foods I feel like I connect with the store(s) (CON2)
	When I shop for locally produced foods I feel like I connect with other local food consumers (CON3)
<b>Purchase intentions for locally produced foods</b>  $\alpha = .904$ AVE = .872	The likelihood that I will buy locally produced foods in the future is: Highly unlikely / Highly likely (PI1)
	The certainty that I will buy locally produced foods in the future is: Highly uncertain / Highly certain (PI2)
	The chance that I will buy locally produced foods in the future is: Very little chance / Excellent chance (PI3)
<b>Perceived consumer effectiveness</b>  $\alpha = .928$ AVE = .851	I can help solve environmental problems by buying locally produced foods (PCE1)
	I can positively affect environmental sustainability by purchasing locally produced foods (PCE2)
	I can protect the environment by buying locally produced foods that are environmentally friendly (PCE3)
	When I buy locally produced foods I make a difference to the environment (PCE4)
	When I buy locally produced foods I make a difference to society (PCE5)

$\alpha$  = Cronbach's alpha statistic

AVE = Average Variance Extracted



#### *4.3. Measurement invariance testing*

To begin the invariance testing process, a model was created that separated both groups of respondents (Italian and U.S. consumers) and simultaneously tested for measurement invariance as outlined by Steenkamp and Baumgartner (1998) and Byrne (2010). Configural invariance was tested by checking whether the measurement items suggested a similar “configuration of salient and non-salient factor loadings across countries” (Steenkamp and Baumgartner, 1998, p. 80). Metric invariance was tested by imposing equality constraints on factor loadings across country groups and comparing these against a model with zero constraints imposed, with a chi-square difference test utilized to highlight significant differences. Scalar invariance was reviewed using latent means testing across the groups, with significant means differences suggesting non-invariant results. Tests for invariance across the five factor variances were also completed and suggested non-invariance across the two groups. Results in Table 3 suggested that only partial invariance could be confirmed for the final measurement model.

**Table 3. Measurement model invariance testing**

Measurement Model	$\chi^2$ value	df	CFI	RMSEA	$\Delta\chi^2/\text{df}$	estimate	Critical Ratio	p-value*
Configural Invariance Model (unrestricted)	589.10	316	.97	.04	N/A	N/A	N/A	N/A
Full Metric Invariance (restricted)	647.56	331	.96	.04	58.46/(15)			.00*
Attitude	593.12	319			4.02/(3)			.26
Subjective Norms	601.87	323			12.77/(7)			.08
Perceived Consumer Effectiveness	636.81	327			47.70/(11)			.00*
Connectedness	608.18	327			19.08/(11)			.06
Purchase Intentions	612.74	329			23.63/(13)			.03*
Final Partial Metric	608.18	327	.97	.04	19.08/(11)			.06
Initial Partial Scalar Invariance	680.56	340	.96	.04	72.38/(13)			.00*
Final Partial Scalar Invariance	630.63	338	.96	.04	41.53/(22)			.01*
Factor Means (Italy group as reference)								.00*
Attitudes						-.15**	- 1.62	.11
Subjective Norms						.49**	3.79	<.01*
Perceived Consumer Effectiveness						-.45**	- 3.90	<.01*
Connectedness						.55**	5.01	<.01*
Purchase Intentions						.59**	6.31	<.01*
Full Factor Variance Invariance	652.06	343	.96	.04	21.43/(5)			.00*
Attitudes	637.34	339	.96	.04	6.71/(1)			.01*
Subjective Norms	639.08	339	.96	.04	8.45/(1)			.00*
Perceived Consumer Effectiveness	643.50	339	.96	.04	12.87/(1)			.00*
Connectedness	639.27	339	.96	.04	8.64/(1)			.00*
Purchase Intentions	630.67	339	.96	.04	0.04/(1)			.84
Final Partial Factor Variance Invariance	630.67	339	.96	.04	0.04/(1)			.84
Initial Full Factor Covariance Invariance	680.49	349	.96	.04	49.82/(10)			.00*
CON ↔ PI	631.58	340	.96	.04	0.91/(1)			.34
AT ↔ PI	631.75	341	.96	.04	1.08/(2)			.58
SN ↔ PI	632.45	342	.96	.04	1.78/(3)			.62
PCE ↔ PI	632.45	343	.96	.04	1.78/(4)			.78
Final Partial Factor Covariance Invariance	632.45	343	.96	.04	1.78/(4)			.78
Final Measurement Model ***	656.32	345	.96	.04				

\*significant @  $p < .05$

\*\* estimates represent differences between groups, with Italian group as reference and U.S. group estimated.

\*\*\* removed error covariances in final model due to insignificance in U.S. group (AT3&AT4 and SN1&SN4).

#### 4.4. Hypotheses testing

Upon completion of measurement invariance testing, a structural model was created from the five proposed constructs with purchase intentions as the outcome construct. Similar to the measurement model invariance testing, this structural model was created and simultaneously tested the Italian and U.S. groups. Results using the newly 'invariant' measurement model items also supported a well fitted structural model ( $\chi^2 = 468.26$ ,  $df = 210$ ,  $\chi^2 / df$  ratio = 2.23, CFI = .95,

RMSEA = .04). As suggested within Table 4, only some of the hypotheses can be fully confirmed. A significant positive relationship existed between attitudes and purchase intentions for both groups, thereby accepting **H1**. The construct of subjective norms reflected a negative relationship with purchase intentions, and was only significant in the U.S. sample, thereby rejecting **H2**. **H3**, while significant for both samples, reflected a *negative relationship* between perceived consumer effectiveness and purchase intentions and therefore was rejected. **H4**, the relationship of connectedness and purchase intentions, was only significant and positive for the U.S. sample, and was therefore rejected.

To test for invariance across the two groups on the proposed relationships, a fully constrained model across the four hypothesized structural paths was compared to the model where no constraints were imposed, with a chi-square difference test noting any significant differences. Results indicated that Italian and U.S. consumers reflected differences across some of the proposed structural relationships, thereby partially accepting **H5**. While the paths of AT → PI (**H5a**) and SN → PI (**H5b**) were insignificant and rejected, **H5c** (PCE → PI;  $\Delta\chi^2/df = 10.43$  (3)) and **H5d** (CON → PI;  $\Delta\chi^2/df = 10.93$ (3)) were found to be significant and therefore accepted.

**Table 4. Structural model hypotheses testing (H1-H5a-d)**

	$\chi^2$ value	df	CFI	RMSEA	$\Delta\chi^2/df$	Standard estimate	Critical Ratio	p-value*
<b>Full Structural Model</b>	468.26	210	.95	.04				
AT → PI (Italian) ( <b>H1</b> )						3.14	3.97	<.01*
AT → PI (U.S.) ( <b>H1</b> )						3.99	4.22	<.01*
SN → PI (Italian) ( <b>H2</b> )						-.53	-1.69	.09
SN → PI (U.S.) ( <b>H2</b> )						-.79	-2.11	.03*
PCE → PI (Italian) ( <b>H3</b> )						-2.19	-2.94	.00*
PCE → PI (U.S.) ( <b>H3</b> )						-5.45	-3.29	<.01*
CON → PI (Italian) ( <b>H4</b> )						-.02	-.06	.95
CON → PI (U.S.) ( <b>H4</b> )						3.07	2.84	<.01*
<b>Structural Path Invariance Tests</b>								
Initial Unrestricted Path Model	468.26	210	.95	.04				
Initial Full Path Restricted Model ( <b>H5</b> )	479.45	214	.95	.04	11.19/(4)			.02*
AT → PI (equal) ( <b>H5a</b> )	468.27	211	.95	.04	0.01/(1)			1.00
SN → PI (equal) ( <b>H5b</b> )	468.41	212	.95	.04	0.15/(2)			.93
PCE → PI (equal) ( <b>H5c</b> )	478.69	213	.95	.04	10.43/(3)			.02*
CON → PI (equal) ( <b>H5d</b> )	479.19	213	.95	.04	10.93/(3)			.01*

\*significant @  $p < .05$

## 5. Discussion, limitations, and future research directions

Companies and businesses around the world often seek to attain a sustainable competitive advantage across a number of perspectives, including production operations and through a better understanding of their target customers. Our study provides a first look at locally produced food customers in two regions of the world- Italy and the U.S., and seeks to better explain differences in factors such as attitudes, normative influences, perceptions of consumer effectiveness, and connectedness with purchase intentions as they relate to environmentally-friendly consumption within the retail grocery domain. From the study, a number of key findings can be extrapolated and utilized when determining which business strategy could be most impactful to attract and retain customers and what may be most salient to consumers when selecting this category. First and foremost, the study highlights the difficulty in doing cross-cultural research within a domain of sustainable foods such as those locally produced. While most construct measures were found invariant across the groups, those for perceived consumer effectiveness were generally non-invariant across the Italian and U.S. sample. One explanation may be the ambiguity of how consumers view aspects of the concept such as ‘making a difference’ and ‘affecting environmental problems/affecting sustainability’ efforts. This would require further purification of the measures and the need to continue research that considers how, and more importantly why, consumers view their efforts of local food purchases as important. Second, the significant latent means differences across the samples for four of the five proposed constructs suggested that U.S. local food consumers reflect higher reported influences from family and friends about their local food purchases ( $\Delta=.49$ ), a higher level of connectedness to the place (store), process (grower), and others (people) that are involved with local food items ( $\Delta=.55$ ), and a higher level of purchase intentions for this category ( $\Delta=.59$ ). However, U.S. consumers were more skeptical ( $\Delta= -.45$ ) that their consumption efforts were effective in affecting the environmental issues relating to local compared to their Italian counterparts, possibly as larger grocers like Walmart, Wegmans, and Whole Foods continue to mainstream their local sourcing efforts while simultaneously trying to minimize potential negative impact on environment through improved transportation efforts (King et al., 2010).

While the study determined that significant path relationships were found between  $AT \rightarrow PI$  and  $PCE \rightarrow PI$  for both groups, significant moderation was found between the Italian and U.S. samples for the relationships of  $PCE \rightarrow PI$  and for  $CON \rightarrow IP$ . This suggests that consumers in

both countries continue to have high attitudes toward local foods, but that Italian consumers may feel less connected to the stores (estimate = -.02) where they purchase local or other consumers of local foods than U.S. consumers (estimate = 3.07) may reflect. This latter point is consistent with a recent survey made by Nielsen (2013b) evidencing that Italians are less prone to rely on acquaintances' recommendations when buying (78%) compared to the average EU citizen (80%) and worldwide citizen (84%). Regarding the lower feeling of connection to the grocery store when buying locally produced food, we believe that in order to understand this result the following opinion of the president of POPAI Italia could be particularly enlightening: "in Italy there's no sense of discovery or of interest that drives, for example, the boom of a chain like Whole Foods abroad for two main reasons. First, the glittering produce departments of U.S. chains like Nugget Market, Sprouts, Fairway reveal their now distant origins as 'green grocers', while in Italy, the supply of the 'freshest produce' often came about as an after-thought expansion of the core business of packaged groceries. Second, while in other countries produce was discovered to be an antidote to the dominion of mass-market foods, in Italy the model went from self-consumption and localism to the convenience of self-service outlets" (Tirelli, 2014, p. 22). In fact, Italian grocery chains (Coop Italia, Conad, Esselunga) are not pushing local producers with the strong intensity as U.S. chain stores are employing; rather they prefer to invest in GIs products under their premium private label. Finally, across the construct of perceived consumer effectiveness, both the Italian and U.S. samples reflected significant negative relationships with purchase intentions (Italian = -5.45; U.S. = -2.19). Marketers, therefore, may wish to consider ways to get consumers to feel a larger part of the food system process, from more enhanced in-store signage that promotes the positive effects on the environment to signage that shows the specific farm or farmer that will be impacted by such purchases. This also suggests that other factors relating to purchase intentions may be more salient to consumers, such as product availability, price, or shopping trip not included in this exploratory study.

For multinational companies seeking to better understand their consumers, the goal is to seek continual feedback from a broad range of customers, particularly as the world becomes more integrated and geographic borders continue to shift. However, as suggested by Roberts (1996) and Diamantopoulos et al. (2003), there is great difficulty in segmenting and profiling 'green' consumers who are ecologically aware and responsive to adding these types of products.

Therefore, grocers may simply wish to highlight their support of local farms, engagement in socially responsible activities, and purchasing of locally produced foods as a way to make a positive connection with their customers through increased marketing, advertising, and sourcing efforts. Extended affects from this marketing campaign may allow companies to understand what types of products customers may want within their regions of the world and also how they want them sourced. It may also effectively lead to repeat customers who identify with these companies and choose to support them.

### *5.1. Limitations*

Within the exploratory study, we note a number of limitations that must be recognized. First, we note that qualitative research was not completed as part of this project but would be useful to further understand why consumers chose local products and how retailers can include more meaningful marketing messages that become more salient when the purchase decision is made. Next, the sample only included Italian and U.S. consumers. While previous literature has not investigated how European and American consumers may differ across a number of factors relating to local food purchase, the generalizability may be limited until a number of other countries are included and comparisons made that also consider culture as a factor. Third, as with any translation of surveys to different languages, we must acknowledge that the possibility exists, even with reasonably reliable and valid survey measures, that certain questions may not have been fully understood or interpreted the same way across the two groups. To this end, it is important to continue to develop measures that might fully capture the essence and meaning of locally produced food items to individual consumers. Finally, we note that stratification of the samples was not completed for this exploratory study, but may be necessary in the future to consider other demographic impacts such as age, education, gender, or geographic differences where locally produced foods may be of greater importance to the culture and economy.

### *5.2. Future research directions*

Future studies, then, should consider the role of culture and in-store environment effects to better determine drivers of customer choice for sustainable products like those locally produced. A comparative study across different channels for local products (e.g., farmers' markets versus retail grocery) may also help to uncover important customer differences that could be leveraged

into better sustainable retailing practices. Retail grocers may also wish to consider how customers view locally produced food items across a number of different product categories to ensure that strategies relating to assortment, pricing, and displays match the consumer expectations. Future studies may also seek to determine the level of participation that consumers want or need as part of the food production scheme, as some consumers want greater ownership in the process (Holloway et al., 2007). As the 'Slow Food Movement' continues to spread across various countries around the world and become more mainstream, grocers not only have an opportunity to connect with their customers by sourcing local, but also create a perceived level of social goodwill that can help them retain a strategic competitive advantage in an otherwise highly competitive food market.

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# **Talking To The Sustainable Consumer - Motivations Behind Preferences For Local Or Organic Food**

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## **Abstract**

This paper aims at understanding the Food Choice Motives underlying consumer preferences for organic versus local food. A sample of 720 German consumers is employed to investigate self-stated preference for organic or local food and the underlying Food Choice Motives health, natural content, price, animal welfare and sensory appeal. Consumers preferring organic over local food put comparatively higher value on the motives health, natural content and animal welfare and less on sensory appeal. For all groups however, natural content and animal welfare are the most important motives, followed by sensory appeal, health and price.

**Keywords:** Consumer Preferences – Food Choice Motives – Local food – Organic food

## Introduction

‘You are what you eat’<sup>16</sup>. The proverbial saying alludes to the common observation that food has not only functional properties as settling hunger and providing nutrients. Food serves to form and express consumers’ self-identity. In consequence, the food sector has become as diverse as consumers. Despite or because of the globalisation of food markets, counter movements including several alternative food concepts have developed, like organic farming or local food marketing (Robertson, 1995). On the one hand, with supply chains growing in lengths and being more international, consumers have the choice between different products or brands originating from countries all over the world. On the other hand, they can also choose between different food production and marketing methods, like organic or local.

Wansink and Sobal (2007) showed that consumers on average make 226.7 food-related decisions every day. Food-related decisions hereby cover all aspects such as when, what, how much, where and with whom to eat. Even if only taking into consideration the category of what to eat, the choice of food itself, they reported an average of 59 decisions per day. Respondents in their study, though, severely underestimated the amount of food choices and believed to make 14.4 food- and beverage-related decisions per day (Wansink and Sobal, 2007). While daily food choices may seem simple, in practice they are complex tasks, which consumers are only partially aware of.

The aim of this paper is to look into the motivation behind certain food choices and more precisely into the motivation behind a preference for organic or local food. The analysis will be based on a sample of 720 German consumers. To set the stage, the organic and local food movement in Germany is described and the literature on Food Choice Motives is reviewed, first

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<sup>16</sup> Going back to Ludwig Feuerbach



for food in general, then explicitly for buying organic or local. Next the data collection is described and results are presented and discussed before a conclusion is drawn.

Understanding the motivation behind the decision for organic or local food, sometimes referred to as 'ethical consumption' or 'green consumption', is of special interest, as both are growing markets in the food sector. Starting off in the early 70s, the organic food movement in Germany showed a rapid growth, developing from a niche market into a market segment with a market share of about 4% in 2011 (iwd, 2011). In line with this rapid growth, the distribution network for organic food changed. While in the beginning organic food had only been marketed through direct sales or specialty food stores, supermarkets and discounters entered the market over the years (Gottschalk and Leistner, 2013). The growth in market size was accompanied by regulatory activity. Since 1992, organic food has to be labelled under EU regulation, currently Regulation 834/2007. Despite the clear legal definition of what can be labelled as organic, uncertainties about whether products are really organically produced are increasingly reported, indicating that trust plays a key role for marketing organic food. For example, Padel and Foster (2005) reported strong consumer distrust in imported organic food. Further they found that organic consumers had high trust in products produced locally, with the ideal case of having direct contact to producers. In this line of research, Adams and Salois (2010) see a shift in consumer preferences away from organic and towards local food.

Taking a look at the local food market in Germany, this movement is rather new, but for sure it is a growing market. In contrast to the organic market, however, there is no reliable data about market shares, due to lacking definitions and/or regulations for local food.

Taking both food concepts into consideration, a combination of organic food production and local food marketing is seen as one solution in the debate of managing trust in organic food

production (Adams and Salois, 2010). The interplay between these two food concepts is increasingly subject of research, covered by the term 'organic plus products' (Schleenbecker and Hamm, 2013). As the term implies, the idea is to add value to the product by claiming an additional benefit besides organic production, in this context the benefit of localness and short supply chains. However, while a combination of organic and local production is seen as beneficial for marketing organic food, overall the organic food market has to compete with the local food movement. This has for example been shown in a study by James et al. (2009) who found a much stronger preference for local than for organic production when surveying 3000 Pennsylvanian consumers in a choice experiment for apple sauce.

Independent of the supportive or competitive relationship between organic and local food, it remains the question, what drives consumers to choose a specific product, like organic or local food, when having the choice between a range of products. Addressing this question, motivation, knowledge, information seeking and habit are seen as factors impacting consumer behaviour (Zepeda and Deal, 2009). The term motivation refers to the question about the why from a psychological standpoint. More detailed, other studies determine consumers' beliefs, attitudes and values as drivers for purchasing decisions (Dreezens et al., 2005; Zepeda and Deal, 2009). These aspects are in turn also the core aspects sought to be underlying the subliminal process of motivation, where motivation occurs out of unsatisfied needs resulting from the before mentioned beliefs, attitudes and values (Schiffman et al., 2008).

Analysing the motives underlying food choice and the importance of single motives, Steptoe et al. (1995) developed the Food Choice Questionnaire, which groups 36 food related items into the nine factors health, mood, convenience, sensory appeal, natural content, price, weight control, familiarity and ethical concern. As the expected motives are already predefined, the emphasis of

the Food Choice Questionnaire was not on the identification of motives, but on analysing the relative importance of those motives. In their studies, sensory appeal was repeatedly identified as the most important factor, followed by the motives price and health and the motives convenience and natural content (Stephoe et al., 1995). Following food trends like Fair Trade, Lindeman and Väänänen (2000) focussed more on ethical motives and extended the list of Food Choice Motives in the Food Choice Questionnaire by ecological welfare, political values and religion. Still their findings were similar to Steptoe et al. (1995) with this time price being the most important motive, followed by sensory appeal and health. In their study however, the food choice motive natural content was only ranked eighth. Besides the motive ecological welfare, which combined items about animal welfare and environmental protection and which was ranked sixth, the added ethical Food Choice Motives were of minor importance. Both studies mentioned used a convenience sample, surveying mainly students and no specific consumer groups, such as, e.g., organic food consumers.

In our study, however, we are explicitly interested in the motivations behind buying organic or local food. These two food concepts are of special interest to look into, as they are often regarded as part of a lifestyle driven by strong motivational factors.

For organic food consumers in Germany, the 2012 Oekobarometer, a regular opinion poll of the German general population aged 14 and above on organic food consumption, named animal welfare, local origin and a low charge with contaminants and residues, but also healthy nutrition for children and during pregnancy, as the most important reasons to buy organic. The high importance of the health motive for organic food consumers can be confirmed by further studies (Bruhn, 2002; Hughner, 2007), despite the on-going discussion whether organic food is more nutritious and inflicted by lower levels of residues compared to conventional counterparts (see

for example Smith-Spangler et al., 2012). Other studies also identify natural content and health as important motives, but regard the contaminant-free production process of organic food as a mediator for the motive of health protection (Vega-Zamora et al., 2013; Zepeda and Deal, 2009). Besides this, environmental protection is named as one of the main motives behind the decision for organic food (Hughner, 2007; Schleenbecker and Hamm, 2013; Zepeda and Deal, 2009). These two aspects, health and environmental protection, cover the private as well as the public good attributes of a product, or in other words egoistic as well as altruistic motives (Schleenbecker and Hamm, 2013; Vega-Zamora et al., 2013). In line with the consideration of altruistic motives, Zander and Hamm (2010), who surveyed organic food consumers in Germany and four other European countries, found animal welfare being most important, followed by local production. The fact that local origin is mentioned as one of the most important reasons for buying organic leads to the assumption that the motives behind purchasing organic and local seem closely related. This assumption can be further confirmed by a study performed by Hughner et al. (2007), where one out of nine motives found for organic food consumption was supporting the local economy.

Besides this, consumers have been shown to be willing to pay price premiums for local and organic food products. As Gottschalk and Leistner (2013) outlined, the financial crisis, starting in 2008, together with the food price hikes in 2007-08, have possibly lowered the willingness to pay or even made price a crucial factor for buying organic, but still price premiums of 10% to 20% can be reached. This might serve as an indication that the motive price is less important when buying organic or local food or at least that there are other motives which are more important for the buying decision for these kinds of products. Lockie et al. (2002) analysed the Food Choice Motives of organic food consumers in Australia, adopting the Food Choice

Questionnaire, and found price been ranked third, with health and natural content being more important and animal welfare as well as sensory appeal being of similar importance, ranked fourth and fifth.

In contrast to organic food purchasing, for the motivation to purchase local food, no studies based on the Food Choice Motives are known. Still there are several studies trying to find out what drives people to buy local. The main advantages named are environmental advantages like short transportation distances, as well as economic support for the own region (Dorandt, 2005; Roininen et al., 2006).

Summing up, there are several studies analysing Food Choice Motives in general or those of organic food consumers in specific, but there are no known studies analysing Food Choice Motives for consumers with a preference for local food. This study aims to fill this gap and in parallel, by comparing probable organic and local food consumers, it takes up the discussion of whether the concepts of organic and local food production compete for the same consumer segment. Similarities in the underlying Food Choice Motives may be an indication for a shift or split between consumers of the two food concepts, while differences in the Food Choice Motives would point to lesser rivalry.

## **Material and methods**

Seven hundred-twenty grocery shoppers were interviewed face-to-face during February and March 2012 in four cities throughout Bavaria, Germany. Besides stratification by region, the interviews took place in front of different shopping outlets, namely supermarkets, discounters, organic food shops and an organic bakery chain. This approach enabled to include a diversity of consumers. However a filter question in the beginning of the questionnaire ensured that all respondents had at least bought organic products once before, narrowing the sample down to

potential organic food shoppers. This however still reflects most consumers, as, according to the GfK, a German consumer research association, the customer reach for organic food products in Germany is 94% (GfK, 2010).

In the following, the questionnaire, which is available upon request, included questions about shopping behaviour, the advantages and constraints to buy local organic food products, as well as the importance of local organic production. Further the definition of localness for three different food products, namely beer, bread and milk, was surveyed. Those products have been selected, because they are among the most important products in the German organic food market and of particular interest for the Bavarian organic food producers. Also, the three products have different degrees of processing and accordingly different distribution networks.

In addition to the before mentioned, the questionnaire asked about five selected Food Choice Motives, specifically health, natural content, price, animal welfare and sensory appeal, which form the core of the current paper. These five Food Choice Motives have been chosen from the list of thirteen food motives by Lockie et al. (2002), a food motive questionnaire developed based on the original Food Choice Questionnaire by Steptoe et al. (1995) and some ethical Food Choice Motives by Lindeman and Väänänen (2000). The chosen five food motives have been the most important ones in the study by Lockie et al. (2002). The importance of the Food Choice Motives health, natural content and animal welfare can also be confirmed for the German market by the 2012 Oekobarometer, which indicated that these three belong to the main reasons for purchasing organic food. On the contrary price is often mentioned as the main constraint not to buy organic and last but not least sensory appeal is a Food Choice Motive which can be actively experienced by the consumer while shopping. To analyse those Food Choice Motives the participants were asked to rate 19 underlying statements, on a five-point scale, regarding their

importance in daily food choice (*'It is important for me that the food I eat on a typical day...'* with 1 = *not at all important* and 5 = *very important*).

Besides the Food Choice Motives, this paper focuses on a preference for organic or local food production. Thereby the preference is determined based on a question, where the consumers were asked to indicate their agreement to the statement *'Local food production is more important than organic production.'*, with the answering options *'Yes, I agree. Local food production is (somewhat) more important to me than organic production'*, *'No, I don't agree. Organic food production is (somewhat) more important to me than local production'*, *'Local and organic production of food products is equally important to me'* or *'It is impossible to generalise. The decision is product dependent'*. Based on this question a preference for either local or organic products is defined, with the latter two answering options being combined and labelled as indifferent.

Using these two questions this study aims to analyse differences in the Food Choice Motives leading to a preference for either organic or local food.

To do so, first of all a confirmatory factor analysis is performed to confirm the factor solution found by Lockie et al. (2002) with the current data.

In a second step, a Oneway-ANOVA analyses differences in the Food Choice Motives between the consumer groups showing a preference for local or organic food production or the consumers which are indifferent between both.

The results are shown in the following, starting with a description of the sample, followed by the results about the perceived importance of local versus organic food production and finally the results of the Food Choice Motives.

## Results and Discussion

### *Subjects*

As indicated in table 1, the majority of the sample is, with 63.2%, female and the age ranges from 16 years to 90 years with a mean age of 50.7 years (SD = 16.4). The average household size in the sample is 2.5 (SD = 1.4) with the most common household type being couple with child(ren) (33.8%) followed by couple without child(ren) (33.2%) and singles (25.3%). Last but not least, looking at income and education, it can be observed that the respondents are overall fairly wealthy and well educated, with an average of 13.2 years of education (SD = 3.8) and an average net monthly household income of about 3300 Euro. Still this profile corresponds to the Bavarian average (Bayrisches Landesamt für Statistik und Datenverarbeitung, 2010; 2011) and, as previous studies could show, the typical organic food consumer is also sought to be highly educated and having an above-average income (Bruhn, 2002; Jonas and Roosen, 2008).

**Table 1: Descriptive Statistics of the Sample and the Subgroups**

	Total (N=720)	Preference Local (N=249)	Indifferent (N=305)	Preference Organic (N=166)
Gender (female %)	63.2	64.3	66.2	56.0
Age (years)*	50.7 (16.4)	52.9 (16.4)	50.5 (15.8)	47.9 (17.1)
Household size*	2.5 (1.4)	2.4 (1.3)	2.5 (1.3)	2.5 (1.6)
Education (years)*	13.2 (3.8)	12.6 (3.7)	13.4 (3.8)	13.9 (3.8)
<i>Net monthly income (%)</i>				
<500 €	1.0	2.0	0.3	0.6
500 – 899 €	4.9	6.8	4.3	3.0
900 – 1299 €	7.6	8.4	6.2	9.0
1300 – 1499 €	8.5	8.0	7.5	10.8
1500 – 1999 €	10.8	11.2	10.8	10.2
2000 – 2599 €	15.8	17.3	15.4	14.5
2600 – 3599 €	16.4	16.9	16.1	16.3
3600 – 4999 €	11.0	9.6	11.1	12.7
more than 5000 €	9.9	8.0	10.8	10.8
Missing values	14.2	11.6	17.4	12.0



\* Std. Dev. given in parenthesis

### *Local versus Organic Food Consumption*

As explained before, all respondents had bought organic food at least once before, so that some interest in organic food production can be presumed. Similarly, regarding local food, 65% of the respondents state that they take into account the localness of food products often or always.

However, product dependent differences between the analysed products bread, beer and milk could be observed in terms of defining localness. As outlined in the beginning there are no regulations or definitions in Germany for marketing food as local. The consumers' understanding of the term local is therefore of special interest. The results show that consumers assign the broadest definition for 'local' to milk, with 51.7% naming the state (Bavaria) and 33.4% naming the county as an appropriate definition. For beer slightly less consumers define local as originating from the state (43.8%) and more consumers hold the tighter definition, originating from the county (36.4%). The most narrow definition accounts for bread, for which only 22.3% name the state (Bavaria) for defining local, whereas 46.3% consider the county as local and 29.4% even apply a tighter definition, namely the place of residence.

The respondents were also asked about their actual buying behaviour, in terms of organic and local products, for the three products bread, beer and milk. The results of this question can be found in table 2 and match the results presented just before.

**Table 2: Share of consumers (%) who buy organic vs. conventional and local vs. non-local**

	<b>Bread</b>	<b>Beer</b>	<b>Milk</b>
<b>Share of consumers (%) who buy organic vs. conventional</b>			
Organic	55.0	14.0	36.7
Partly organic – partly conventional	10.2	5.0	5.2
Conventional	33.3	50.2	47.9
Don't buy	1.5	30.8	10.2
<b>Share of consumers (%) who buy local vs. non-local</b>			
Local	84.2	85.5	64.0
Non-local	7.0	10.0	18.8
Don't know	8.8	4.5	17.2

The high amount of consumers who state to buy organic, especially for the product bread, might be surprising on the first view. Still it can be easily explained by the interview localities, as some of the interviews have been undertaken in front of organic supermarkets and some in an organic bakery.

The amount of consumers who state to buy local is high for all three products, slightly lower though for milk, where the amount of consumers who point out that they don't know whether the product is local or not is, with 17.2%, comparably high. This finding is in line with the before mentioned definitions for localness, showing that consumers hold higher uncertainties for local milk, compared to bread and beer.

Coming to the advantages consumers see in local food concepts, 'short transportation distance' is the association named by 54.9% of the respondents and thereby most often. This on the other hand can also be linked to the advantage of 'environmentally friendly', which was named by 17.9% of the respondents, and the association of 'fresh products' (20.5%). Besides this, the support of local farmers (37.4%) is named as an important reason to purchase local food products. Regarding the constraints keeping consumers from purchasing organic and local, the uncertainty whether it is really an organic and local food product was named very often, with

only the reason ‘too expensive’ mentioned more often. As outlined earlier these results are in line with findings of previous studies (Padel and Foster, 2005; Gottschalk and Leistner, 2005).

Taking again both food production methods into consideration the potential competition between local and organic is analysed asking for the agreement to the statement ‘*Local food production is more important than organic production*’. The results, shown in table 3, indicate that with 23.1% only the minority of respondents denies the statement and thereby shows a preference for organic food production. 34.6% of respondents report a preference for local food production and the majority of respondents are indifferent between both food production systems, stating that both is equally important or that it is product dependent.

**Table 3: Preference for local versus organic food production**

<i>‘Local food production is more important than organic production’</i>			
Yes, I agree	34.6 %	Preference Local	34.6%
No, I don’t agree	23.1 %	Preference Organic	23.1%
Both is equally important	23.6 %	Indifferent	42.4%
It is product dependent	18.8 %		

Taking only a look at the first two answering options indicating a clear preference statement, the data shows that the majority of respondents show a higher preference for local than for organic food production. Comparing these results with data on the same question from a sample from the same region in 2004, changes in the perceived importance can be observed: Köhler (2008) found that, at that time, the majority of respondents (46%) claimed organic production to be more important than local marketing.

For the subsequent analysis, it is important to note that the group labelled ‘indifferent’ is not necessarily less interested in organic food production or the localness of the products. This group might even include those consumers aiming solely for a combination of both production methods.

Grouping the sample into those three subsamples based on this preference statement for organic or local food production, the sociodemographic characteristics for each of the subsamples are shown in table 1. As can be seen, there are only slight differences in the gender ratio and mean ages between the subsamples. Subsequently  $\chi^2$ -tests did not show any significant differences in the sociodemographics between the subsamples.

### *Food Choice Motives*

Table 4 shows the results of the confirmatory factor analysis. As expected, the five Food Choice Motives health, natural content, price, animal welfare and sensory appeal are identified. One remark, however, is in place: the two items '*Is as unprocessed as possible*' and '*Is prepared in a way that preserves its natural goodness*' were excluded from the analysis due to low factor loadings.

The reliability analysis results in high Cronbach's Alpha for all factors but for the factor price. The relatively low Cronbach's Alpha for the factor price shows ambivalence in the responses to the two items forming this factor. Taking a closer look at these two items, it can be observed that 89.3% of all respondents state that good value for money is important or even very important for them, while only 39.2% state this for the item not expensive. In other words, the respondents state that they are willing to pay higher prices if they perceive the food as being worth the higher price.

Now coming to the question what drives people's food choices, the mean values, displaying the average importance of the five motives, are taken into consideration. As the results in table 4 show, natural content (4.47) and animal welfare (4.34) are the most important motives driving the respondents' food choices.

**Table 4: Food Choice Motives and reliability**

<b>Factor</b>	<b>Item</b> <b>‘It is important for me that the food</b> <b>I eat on a typical day...’</b>	<b>Mean<sup>1</sup></b>	<b>SD</b>	<b>Reliability</b> <b>(Cronbach’s</b> <b>Alpha)</b>
<b>Natural content</b>	Contains no additives	4.47	0.83	.933
	Contains natural ingredients	(4.32)	(0.77)	(.868)
	Contains no artificial ingredients			
	Certified free of chemical and hormone residues			
	(Is as unprocessed as possible) (Is prepared in a way that preserves its natural goodness)			
<b>Animal welfare</b>	Has been produced in a way that animals have not experienced pain	4.34	0.97	.881
	Has been produced in a way that animals’ rights have been respected			
<b>Sensory appeal</b>	Smells nice	3.99	0.88	.812
	Looks nice			
	Has a pleasant texture			
<b>Health</b>	Contains a lot of vitamins and minerals	3.80	0.75	.746
	Keeps me healthy			
	Is nutritious			
	Is high in proteins			
	Is good for my skin/teeth/hair/nails etc			
	Is high in fiber and roughage			
<b>Price</b>	Is not expensive	3.71	0.84	.428
	Is good value for money			

<sup>1</sup> Five point scale where 1 = not at all important and 5 = extremely important

These motives are followed by the motives sensory appeal and health, with a mean value of 3.99 and 3.80 respectively. Lastly respondents state that the motive price is, with a mean value of 3.71 on a five-point scale, the least important motive driving their food choice. However, independent of the order, it has to be noted that all five Food Choice Motives are pretty close in their importance rating, with all mean values being around four, which illustrates that all five chosen Food Motives are considered as being important by the respondents.

Based on these results the next step was to analyse, in an Oneway-ANOVA, whether the motivating factors behind a preference for either local or organic production differ. As outlined earlier, in the debate of whether the concepts of organic and local food threaten each other, it is of high interest to look at the underlying Food Choice Motives which may lead to a preference for one or the other. Table 4 shows significant differences between the groups for all factors, but price.

**Table 5: Motivating factors behind food production preference**

<b>Factor</b>	<b>F</b>	<b>Significance</b>	<b>Preference</b>	<b>Mean<sup>1</sup></b>	<b>SD</b>
<b>Natural content</b>	3.804	0.023**	Local	4.36	0.97
			Indifferent	4.53	0.68
			Organic	4.54	0.85
<b>Animal welfare</b>	2.855	0.058*	Local	4.22	1.04
			Indifferent	4.38	0.92
			Organic	4.44	0.93
<b>Sensory appeal</b>	3.881	0.021**	Local	4.12	0.84
			Indifferent	3.93	0.86
			Organic	3.92	0.96
<b>Health</b>	5.797	0.003***	Local	3.69	0.76
			Indifferent	3.90	0.73
			Organic	3.79	0.75
<b>Price</b>	1.994	0.137	Local	3.77	0.85
			Indifferent	3.71	0.86
			Organic	3.61	0.80

\*, \*\*, \*\*\* denotes significance at the 10%, 5% and 1 % level

<sup>1</sup> Five point scale where 1 = not at all important and 5 = extremely important

This means that although all consumers show a pretty similar motive structure, there are slight differences which might be one reason behind a preference for a specific food concept like local or organic. For all consumers natural content and animal welfare are the most important Food Choice Motives, followed by sensory appeal. Consumers with a preference for local food then named price as being more important than health, while consumers with a preference for organic food, as well as the consumers labelled indifferent, ranked health more important than Price.

Independent of the motive structure it is interesting to compare the two consumer groups with a preference for either local or organic motive by motive. The motives health, animal welfare and natural content are more important to consumers who show a preference for organic production, whereas sensory appeal is found to be more important to consumers with a preference for local food. Taking the ratings of the third group, the indifferent consumers, into consideration, these lie in between of the two other groups, often, however, fairly close to the organic food consumers. Only the Food Choice Motive health is clearly more important to this consumer group, nearly as important as sensory appeal.

The high importance of the Food Choice Motive natural content for all three consumer groups is not surprising. As stated before, it was ensured that all respondents of this study have at least once bought organic food products, which means that some interest in this topic can be presumed. Now, considering the items in the factor natural content these represent the principals of organic food production. Therefore it makes sense that those respondents who put higher value on this factor show a preference for organic food production, while natural content is still important, but slightly less, for those, preferring local food. The Eating Motivation Survey, recently published by Renner et al. (2012), goes even further in this context, as they treat organic food production as one item, being part of the motive natural concern.

The high importance of the factor animal welfare is also not surprising. Lindeman and Väänänen (2000) report already in 2000 an enormous growth of the number of vegetarians and high importance of this factor. Additionally the topic of animal welfare has increasingly been covered by media in Germany, potentially leading to increased consumer awareness.

On the contrary, it might be surprising that, independent of a preference for local or organic production, the motives health and price are considered as the least important ones.

For the health aspect, research on nutrition and health claims could show that only occasional organic buyers preferred products with a claim, whereas the more intense organic food consumers neither preferred nor rejected products with such a claim (Aschemann-Witzel et al., 2013). While this could be an indication that health does not play a central role for organic food consumers anymore, still there are several previous studies defining health to be one of the most or even the most important factor for organic food consumption (Bruhn, 2002; Hughner, 2007). It has to be noted however that several studies that resulted in this finding did not use the Food Choice Questionnaire and might have covered different aspects under the health motive. In this context a close connection between aspects of health and the natural goodness of a product, in this study covered by the factor natural content, might be expected. In other words it can be assumed that the motive health might also be closely correlated with the motive natural content, which was rated as the most important Food Choice Motive in the present study. Consumers might perceive a product which contains natural ingredients, no additives, no artificial ingredients and no chemical and hormone residues also as a healthier product. This assumption is supported by previous research. Zepeda and Deal (2009) for example even consider the avoidance of pesticides and hormones as a mediating act for health protection. Contrarily, Steptoe et al. (1995) consider both aspects as distinct motives, but still they also report a significant correlation between the two motives health and natural content. Testing for it, we can confirm a significant, medium correlation ( $r=0.428$ ) between those two motives for our data. Concerning price, it should be taken into account that the two items of this factor were quite ambivalent, with most participants stating that it is not important that the food they buy is low price, but that it should be good-value for money. Consequently if they consider the product to be worthy, the price becomes less important. This corresponds with findings of higher



willingness to pay for local and organic food. Further the low importance of the factor price might be explained by the sample characteristics. Previous studies which showed that price was one of the most important factors surveyed mainly students (Steptoe et al., 1995; Lindeman and Väänänen, 2000), whereas the present sample was mainly employed and relatively wealthy. The high importance of sensory appeal again coincides with previous findings (Steptoe et al., 1995; Lindeman and Väänänen, 2000). Also the market has identified this and acts according to consumers' requests, putting high importance on the appearance of their products, especially of fresh products like fruits and vegetables. Although this is no new finding, it leads to a current discussion of how to limit food waste and why visually blemished food does not get sold and bought.

## **Conclusions**

The results of this paper help to understand the motives behind green consumption, like the choice of organic or local food. Summing up, we find similar motive structures underlying a preference for organic or local food, with natural content being the most important motive, followed by animal welfare, sensory appeal, health and price. While previous literature emphasizes health as one of the main motives for organic food consumption, the present study shows that the natural content of the products, through which consumers potentially consider the food choice to be healthier, is the driving factor and should therefore be emphasised in marketing activities. A limitation has to be made, as environmental protection, the second most important motive for organic purchasing named in previous studies, has not been assessed in the present paper. It can be assumed that especially local food purchasing is much motivated by environmental concerns. One finding, the high importance of animal welfare, however is in line with previous studies and might be a sign of increasing ethical consideration in purchasing

decisions. Still, even here is room for discussion, whether the driving force is really the altruistic motive or whether animal welfare can also be regarded as a mediator for private-good attributes such as perceived food quality or safety. This hypothesis is supported by a recent study from Vega-Zamora et al. (2013) who conclude that the whole term 'organic' can be regarded as a heuristic cue.

A conclusion on the supportive or competitive characteristics of the organic and local food market cannot be drawn. While we find similarities in the motive structure between these two food concepts, we find differences in the rated importance of those motives to the respondents. However, as the results emphasise a high importance of both, organic and local production, local marketing should be seen as a chance. On the one hand, organic farmers should consider the possibilities to market their food locally and thereby add further value to their products. On the other hand also conventional farmers might be able to increase the value of their production, in the competition with imported products, when marketing products as local. From a consumer protection point of view these marketing activities however have to be seen critical, due the lacking definition and regulations for local food, opening the door for consumer deception and false marketing claims.

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# **Empirical Studies Of Food Retailing In Developing Economies**

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## **Abstract**

This paper provides an overview of research studies conducted on food retailing in developing economies from 2000 to 2014 through the review of 154 articles published in English in 62 different journals related to food marketing and business economics. The main purpose is to identify discernible trends and profile the current state of food retailing in developing countries after the emergence of modern food distribution. This body of literature has anticipated the future of modern food retailing in emerging economies. This paper points out a number of research avenues for future studies in food retailing in developing economies.

**Key words:** developing economies, retailing, food, marketing

## **Introduction**

The purpose of this article is to investigate contributions of the empirical studies conducted in the developing economies and propose the future areas for research for the growth of food retailing sector. Empirical articles published from 2000 to 2014 on food marketing and related discipline in the emerging economies were reviewed. That period has seen the rise of articles on food retailing from the region following arrival of global large retailers such as Wal-Mart, Carrefour, Tesco and the Ahold. Also the region has seen a significance number of cross border food retailers expansions to other developing economies. Based on 154 articles reviewed much is known and well presented by researchers on food retailing from developing economies. But beyond these basic facts, there are many important areas for future research. These topics are of great significance not only for the retailers, employees and shareholders but also for millions of consumers in the regions who are seeing traditional food distribution changing beyond recognition. These stakeholders include not just the general population but also, food growers, food processors at all levels, government institutions and non-governmental organisations.

Food retailing distribution in developing economies is dominated by small scale growers, wholesalers and traditional market. However, recently these countries have seen a quick rise on food retail distribution. For instance in China modern food retailing is shifting from urban to rural areas (Hu et al., 2004). There are many reasons for this shift in developing economies. According to World Bank (2014) report the economy of developing economies forecasted to grow from 4.3 per cent in 2013 to 5.3 per cent in 2014. This increase estimated to be 60 per cent more than the percentage of growth in 1990s. Even in developing economies with a large number of people living on less than a dollar per day, modern food retailing system is expanding.

What constitutes developing economies? The World Trade Organisation (WTO) indicates that a country can identify itself as a developing economy. Other member countries, however, can challenge that status and the status can be removed ([www.wto.org](http://www.wto.org)). There ought to be some clear parameters for a country to be listed in the group of developing economies. Furthermore, one country can be referred as developing by one organisation and yet be removed from this status by another organisation. That made the definition of developing economies much difficult.

This paper adopts a broader notion of developing economies, as those countries which initiated macroeconomic policies that allow the emergence of food retailing transformation. It is felt that this broader definition is necessary to portray a fuller picture of what is taking place in those areas where have adopted macroeconomic changes that led to the emergence of food retailing. Under this notion some of the countries which are in the list of *developed* countries in the WTO categories fall in the group of *developing* countries such as China and Russia. For the purpose of understanding Taiwan and South Korea have been included as developing economies countries. This review paper therefore seeks to address the following questions related to food retailing in developing economies.

1. What has been researched in food retailing in developing countries? What has been less researched? Why? What are the implications of these knowledge gaps?
2. What research methods have been used (e.g. case study, survey, interviews and cross country/region comparative studies)? Are these adequate? What are the gaps and what are the implications for findings and intellectual breakthrough?
3. What types of companies (e.g ownership: multinational corporations, joint ventures, state owned enterprises, privately owned enterprises or small and medium enterprises (SMEs) and industries (e.g Fresh fruits and vegetables (FFVs) and organic foods) have been studied?
4. What theoretical perspectives have been adopted? Why? What are the gaps? What are the implications for findings and intellectual breakthrough? What have been the major theoretical contributions?
5. Are these studies keeping pace with advances of food retailing in the area? Are these studies reflecting the changing trends in the food retailing landscape and practices in developing countries?
6. What are themes for the future studies should focus on? (e.g methods, types of firms, industrial sectors and aspects of food retailing)

### **Research method and coding**

For the purpose of this paper the author selected 62 journals in different disciplines including business, marketing, development, agricultural economics, geography economics, food policy, food marketing and agribusiness. These articles were published in English only (see table 1).



Key words '*food retailing in developing economies*' and '*supermarkets in developing countries*' were used to search for each of the journal in different disciplines from the Aalborg library electronic journal database. The search period is confined to be between 2000 and 2014. The purpose is to capture the latest changes in food retailing in developing countries since the arrival of large Western retailers in the mid of 1990s in emerging economies. It must be noted that these articles by no means encompass all the articles published in this period in the developing countries on food retailing issues. Nonetheless, it is felt that the review captures the majority of the articles published in leading international journals that were available online. To facilitate collections of papers and refining process different search engines were used including Proquest, Emerald, Sage and Indescience for a clear search on particular journal on the topic.

Each article related with the study was downloaded then read and coded by the author. The coding categorization was created in order to address the research questions above for the analytical purpose of this paper. The abstract, methodology and conclusion sections of each paper were examined. In some cases literature reviews were reviewed for the identification of theories used in the study. This study used only empirical journal articles and more specifically only articles that used certain method for data analysis technique reviews and commentary articles were not included in this work.

Thematic analysis technique was used for identification of major themes which emerged from the coding process. In general articles encompass more than one theme. The intention is to use it to facilitate the discussion of what thematic topics have been researched and published on. It should be noted that the present study is limited by not having second coder, the use of only journals published in English language and only those available online. It is obviously that a substantive analysis of studies that emerged under each theme is beyond the scope of this review. Where necessary, examples of studies are cited to highlight areas of significance contributions, but that does not signify other scholars not cited in this work have not significantly contributed in a particular topic

### **Where the articles have been published?**

154 articles related to food retailing in developing economies have been found in 62 academic journals in different disciplines. The variability of discipline was due to the nature of food itself and its impact on communities. Table 1 shows articles found in different journals. In 2000 only

three articles on food retailing in developing economies were found. After 2000, articles increased very slowly with the range of three articles per year related with food retailing up to 2012. An increment of over 100% with 11 articles published in 2010. This result suggests that the interest in writing on food marketing in developing economies is accelerating. One strong reasons for this change is the increasing of food retail internationalisation where by the global number one retailers, Wal-Mart, is shifting from one continent to another and from 2011 joined the race of food retailing in Africa by acquiring 51 per cent share of Massmart.

In addition to an increase in numbers of articles, there was an increase in the number of countries represented in the articles. With exception of South Africa, African continent is not well presented. Countries that have been well covered are China, Taiwan, India and Mexico. There are initiatives to cover major economies such as China with journals focusing on a country, Asia and Western pacific and Latin America. These initiatives found number of articles with food marketing related articles to be published in those journals by scholars from those areas.

Issues of publishing in international journals seem to be very interesting for researchers' communities. However, different journals have been given different rates in different country. For instance, Aston Business School rated zero for Journal of Food Product Marketing, Journal of International Food and Agribusiness Management (JIFAM). While in Denmark, JIFAM is ranked among of the journals accepted with one star. Despite of these misunderstanding on ranking there are some similarity for instance Journal of Retailing is highly ranked in both two countries. Based on that contradictory on ranking and the fact that issues of food is emerging in developing economies this paper considers the entire body of knowledge of the work without focusing on journal ranks.

**Table 1: Food retail articles searched (2000-2014)**

No	Titles	Articles found	No	Titles	Articles found
1	Africa Development	1	31	Journal of Business Research	4
2	African Journal of Economics and Management Studies	1	32	Journal of Chinese Economics and Business Studies	1
3	African Sociology	1	33	Journal of Comparative Economics	1
4	Agrekon	2	34	Journal of Contemporary China	1
5	Agribusiness	2	35	Journal of Cleaner Environment	1
6	Agricultural Economics	1	36	Journal of East-West Business	2
7	Applied Economics	1	37	Journal of Food Product Marketing	4
8	Applied Economics Letters	1	38	Journal of Global Academy Marketing Science	1
9	Appetite	2	39	Journal of Global Marketing	1
10	Asian Economic Journal	1	40	Journal of International Development	1
11	Asian Pacific Journal of Marketing	1	41	Journal of International Food and Agribusiness Marketing	10
12	Australian Marketing Journal	1	42	Journal of Macromarketing	8
13	Baltic Journal of Management	1	43	Journal of Marketing Channel	1
14	British Food Journal	28	44	Journal of Marketing Management	1
15	Cities	2	45	Journal of Product and Brand Management	1
16	Communist and Post-Communist Studies	1	46	Journal of Purchasing and Supply Management	1
17	Cross Cultural Management	1	47	Journal of Retailing	4
18	Development Policy Review	5	48	Journal of Retailing and Consumer Services	1
19	European Business Review	1	49	Journal of Retailing Studies and Customer	1
20	Experts Systems with Applications	1	50	Journal of Rural Studies	2
21	Food Control	5	51	Journal of Southern African Studies	1
22	Food Policy	6	52	Latin America Business Review	1
23	Food Quality and Preferences	1	53	Marketing Intelligence and Planning	1
24	International Food and Agribusiness Management Review	1	54	Public Health Nutrition	1
25	International Journal of Consumer Studies	1	55	Qualitative Marketing Research	1
26	International Journal of Retail and Distribution Management	29	56	Qualitative Market Research: An International Journal	1
27	International Marketing Review	1	57	Review of Policy Research	1
28	International Journal of Service Industry Management	1	58	Supply Chain Management: An International Journal	1
29	Journal of Agrarian Change	1	59	Singapore Journal of Tropical Geography	1
30	Journal of Agriculture and Human Value	1	60	The International Review, Distribution and Consumer Research	2
			61	The Journal of African Modern Studies	1
			62	World Development	2

### **What topics have been researched?**

A wide range of topics have been covered in the articles published on food retailing in developing countries. In general 10 topics on food retailing emerged. These are listed and discussed below.

1. *Welfare of the upstream food value chain actors:* This trend of research has a long time to be focused in developing countries. However, before 1990 in most of these countries interest was on the welfare of upstream actors in food value chain with reflection on various activities initiated and performed by retailers in developed countries. After these countries implemented liberalised agriculture policies the focus changed to host countries. Many of the studies conducted in the developing countries focused on the price paid by foreign retailers' vis-à-vis traditional retailers (Michelson et al., 2012; Berdegue et al., 2013). A second area of focus was which mode should be used to link these upstream actors to the host country in the new emerging urban food retail (Blendon et al., 2009; Merkelova and Mwangi, 2010). Miran et al., (2009) conducted a study on the strategies that can be used by poultry keepers in Turkey. The study found that for poultry keepers to benefit from raising chickens more investment was needed for storage facilities. Studies have also been conducted on vegetables and fruits growers in the upstream of the food value chain. More studies are needed for other commodities such as beef, fish and non-ruminant animals, as well as dried cereals and legumes. The latter are highly consumed by many people in emerging economies and thus an important focus of study. Furthermore, studies have to include the producer of genetically foods and what strategies they will use to market products.
2. *Challenges facing modern food retailers in developing economies.* Studies noted that in developing countries modern retailers face unreliable infrastructures; low demand due to low disposable income, volatile government policies and shortage of human capital to run large investments. This body of literature provided a diversity of findings on the future of modern retailing in developing economies. Some scholars

forecast failures for most of the large retailers and some see positive prospects for Western retailers in developing economies. Some of these studies worth mentioning here are those by Hino (2010), Chen et al., (2009), Goldman (2001), and Li et al., (2008). However, the interesting finding from the above mentioned articles is that, with exception of Hino's work, they focused on the diffusion of modern retail formats and market share growth in China. An important finding of these articles is that for Halal food and other fresh products, consumers in developing countries prefer traditional retailers over large modern retailers (Hino, 2010; Maruyama and Trung, 2007). Even, consumers with lower incomes appear to be conscious of food quality, particularly its freshness (Chen et al., 2009). This indicates that foreign retailers would be preferred in developing countries as the source of processed foods, but perhaps not for fresh or speciality foods. Furthermore empirical findings shows that foreign retailers target middle to high social-economic class while domestic retailers target lower social economics consumers (Chen et al., 2009). This means domestic retailers have to locate their stores around low income areas putting them into strong competition with informal micro-food vendors.

3. *Consumers' behaviour regarding food* Articles in this category investigated consumer behaviour in relations to formats of emerging urban food retail in developing countries. In some regions very few studies focused on consumer behaviour. With expectations of China other developing countries consumer behaviour studies were mainly focused on acceptance of modern retailing formats. For instance there are a good number of studies on ethical food in China, yet very few from Africa and those available in Africa have concentrated in South Africa. Studies on food ethnocentrism emerged in some parts of Africa with respect to how consumers in the continent behave. Worth mentioning studies here are Brady and John (2009/2011), Okechuku and Onyemah (2000), Safu and Walker (2005/2006/2006). Empirical evidence on food retailing in developing countries indicated the transformation of consumer preference for making purchase was not only influenced by price reasons but also other non-price factors. According to Chen and Lobo (2012) consumers in China prefer organic food and number of factors such as lifestyle, products, regulatory. This implies that regulatory organisations have significant role influencing the demand of

ethical food in developing countries. In another study about organic foods in China and Poland early adopters were found to be influenced by beliefs about healthiness, taste and environmental friendliness (Thøgersen and Zhou, 2012; Zakowka-Biemans, 2011). Findings about the impact of price on purchasing organic foods are contradictory. Ineson et al., (2012) in a study conducted in Vietnam found consumers were not price sensitive towards organic food while Zakowka-Biemans (2011) in the study conducted in Poland find price is very significant factor. Despite the increase in demand for ethical food in developing economies, less is known about the consumers' trust of the organisation that endorses the ethical food. Critical questions that need thoroughly answers are: How consumer perceived ethical food endorsed by local organisations? How emerging countries consumers' perceive the relationship between endorsing organisations and the government?

4. *Studies focused on competition between different formats such as wet markets, small groceries stores, supermarkets and hypermarkets.* Most of these studies were conducted in China. Bai et al., (2008) found that in China competition is between hypermarkets and supermarkets because the latter substitute the former. Furthermore, consumers who prefer to purchase variety of product at different levels of quality, like to shop at hypermarkets. Empirical evidence show that consumers in developing countries are migrating to modern retailing stores. Nonetheless, little is known about which marketing format is applicable in developing countries. However, it well known that failure of international food retailers was due to formats (see Baek, 2005; Dawson, 2005). Which formats will be preferred by consumers? How do consumers perceive hypermarkets or supermarkets compared with convenience stores? One of the failures of the Western retailers in Japan was due to ineffective retailing formats. So far empirical evidence shows females in developing countries prefer to shop in the hypermarkets more so than do males (Bai et al., 2008). This preference is an advantage for retailers operating in the countries where females are involved in family food purchase like Malaysia, Vietnam. How will it be in other countries where men are highly involved in food purchase like Arabic countries? More researches are needed on retail formats and how retailers can strategize their operations in those countries.

5. *Consumption of genetically modified (GM) foods* Acceptance of a GM food is an important topic, yet a significantly under researched aspect of food products in developing countries. Few articles focused on this category in developing countries, despite the fact that some of the countries have already introduced GM foods and seeds (Huang et al., 2012; Mandal and Paul, 2012). There are significance gaps on literatures on the acceptance of GM foods in developing countries among consumers based on demographic data as well as the perceptions of policy makers. For instance, Mandal and Paul (2012) report that consumers in India are scared to use GM foods due to health concern, and lack of knowledge and information on GM. Other studies conducted on GM foods and consumers focused on their knowledge level on the GM foods items (Becker and Kajale, 2013; Gao and Knight, 2009; Knight and Paradkar, 2008; Cerjak et al., 2011). Critical questions are: If consumers in developing countries lack knowledge which source of information are trusted by them? Should the GM foods endorsed by third party be considered like ethical foods in the Western countries for consumers? How will consumers' confidence in their government as a whole affect their confidence in endorsements of GM food by agencies of that government? Studies focused on the influence of demographics on the consumption of GM foods. Female consumers have a more negative attitude towards GM foods than male consumer when they consider whether GM foods are healthy or not (Chen, 2011). Huang et al., (2012) found that Chinese consumers' who have limited access to social services and employment have low levels of trust in GM foods. This study indicates that as consumers have access to basic needs and social facilities provided by the government they starts to trust government guidelines about genetically modified foods. However, interesting findings is the contrary finding that unemployed people would be expected to accept GM foods due to financial budget constraints. Despite of these findings it is important to have a thoroughly understanding on particular commodities such as maize, or rice for deeper understanding of consumers perceptions on GM food. Furthermore, studies are need on how consumer perceives animal meat from genetically fed animals like pork or beef.

6. *Impact of modern food retailing on poor urban consumers* This category is dominated by development economics and nutritional economics scholars with interest of understanding the impact of modern retailers on urban poor consumers. The previous well known notion in developing economies is that supermarkets intend to serve a higher income class and their prices are higher compared with traditional markets. With this notion emerged group of scholars that challenges the presence and expansions of this new model of food distribution in developing economies. These scholars share an interest in protecting poor urban consumers by advocating urban food insecurity. Some of the scholars question the spread of supermarkets in Africa as it impacts food security (Frayne and Crush, 2011). However, empirical findings show that modern food retailing would not hurt poor urban dwellers. Modern retailers buy in bulk and they benefit from economies of scale which results into low operation cost hence low price to final consumers. For instance Figurie and Mouster (2009) find that urban poor consumers in Vietnam have high opinion of food quality offered at supermarket. However, they shop very little due to budget constraints and transportation problems. This study indicates that poor infrastructure in developing countries limits the poor urban dwellers to access supermarkets. But in relation to price, Gibson and Kim (2013) in the study conducted in metropolitan areas of Vietnam identified that there is no evidence that urban poor consumers face higher food prices than their non-poor neighbours. Furthermore, studies have been conducted on comparison of urban and rural consumers on consumption of milk and dairy products. The results show that rural consumers characterised by low income, and limited education, prefer to buy raw milk while urban consumer, who have mod-level university education, tend to consume pasteurised milk. In rural areas consumers usually make their own yoghurt and cheese and those who purchase it pay most attention to its packaging (Ates and Ceylan, 2010). More studies are needed to understand the relationship of modern food retailing and availability of healthy food in developing economies. Another area of concern is how modern retailing stores are associated with obesity in emerging economies?
7. *Food quality, safety and adherence to food standards* A related body of literature to that on food retailing in developing countries focused on this topic. These studies,



however, focused on the implementation of public and private standards by retailers. All of the studies focused on fresh produce; processed food was not well presented. Some the studies worth mentioning are Gorton et al., (2011); Farina et al., (2005); Cawthorn et al., (2013). Zhang (2003) found that for consumers in Shanghai valued taste of pork and fresh milk is more important than price. This study is a stimulus for more studies on understanding quality factors that influencing consumers purchase decisions in emerging economies. While for chicken market availability is the important factor that stimulates consumptions in China. Another study by Zhang (2005) found that Chinese consumers' are more concerned about food safety, particularly with regard with vegetables and dairy products than price. Furthermore, Zhang' study found consumers in China are not aware with genetically modified food and ethical food, but young consumers prefer to consume pollution-free foods. While consumers are migrating to modern food stores, food crisis and information filtration emerged to be interesting area of study. Food safety has been interesting subject because food crisis has an impact on the economy. For instance BSE crisis affected much the UK economy as well the image of retailer. Different studies in emerging economies have tried to document threat of food crisis that occurred in emerging economies such as consumption and perception of consumer after bird influenza in China and milk melamine scandals (Chen, 2012; Vakasovic, 2010; Gao et al., 2011). Despite of these efforts studies with in-depth case studies are needed in order to uncover how retailers and agro-food suppliers in the developing countries strategically design means of reducing if not eliminating cases of food crisis. Studies are also needed to examine how consumers perceive assurance information from government institution after a food scandal provided.

8. *Challenges facing foreign food retailers from developing economies in emerging markets* A related body of literature on food retailing in emerging economies focused on challenges faced by foreign retailers in new markets. However, most of the studies focused on the problems facing retailers from developed countries and less attention paid to retailers originating from developing countries. Some food retailers from emerging economies are expanding to foreign markets. For instance South African

retailers such as Pick 'n Pay and Shoprite are major players in Africa (see Reardon and Weatherspoon, 2004). These retailers failed, however, in Australia and India. Also retailers from Chile are major players in Latin America regions that include countries like Argentina and Columbia. But less is known and how do developing economies perform in the foreign market. In Asia, Goldman (2000) identified that Chinese communities have marginalised retailers from other Asian countries that operate in China through cross border internationalisation. In general at the global level there is a clear focus on how, when, what and where for the retailers from developed countries and a number of journals have a special issue for that such as *Journal of Global Marketing* but much focus was for Japanese, US and Western Europe retailers and less so on retailers from emerging or second tier economies.

9. *Where do they shop?* With the emergence of modern retailing in developing countries a group literature emerged with interest in understanding consumers' preference on where to shop. The interest was on understanding why consumers choose either modern stores or traditional stores ( e.g Maruyama and Trung, 2007). Empirical findings have shown that consumers in developing countries are buying processed foods in modern retail stores but for fresh foods they are buying it from traditional stores. Following to this consumption patterns, consumers in developing countries shop frequently and in small portions (Jausime, 2001; Maruyama and Trung, 2009). Many reasons explained this consumer behaviour such as perception of freshness, price discount convenience (Goldman, 2000; Maruyama and Trung, 2007). In addition to that, empirical evidence shows significance correlations between income and safety. Studies conducted in China by Jausime (2001); and Vietnam by Maruyama and Trung (2009) found that the consumption of chicken and fresh fruits is clearly more elastic than the consumption of pork and fresh vegetables. This finding implies that as the income increases people will shop at modern stores due to safety. But more studies are needed to understand what strategies modern retailers can use to attract buyers who perceive them are not selling fresh products. Also what strategies are used by traditional retailers in retaining their customers? Currently empirical evidence shows that retailers in China and Vietnam are providing transport services as the means of reducing transport problem for lower class in big cities to

reach their hypermarket located at outskirts. How will they break through the convenience problem in the developing countries? Bai et al., (2010) found consumers' of liquid milk in Beijing linked safety with brand and venue. This implies consumers do develop trust in a brand image of the retailers. However, no study so far has investigated how image can assist retailers in penetrating developing markets and how suppliers' activities can affect retailers' image? Most of the assumptions currently applied by retailers in developing countries have been formulated in the developed countries. Given that situation it is highly encouraged for researchers from developing countries to have a thorough study on the impact of image and suppliers have on the building and destructions of the image of the retailers.

10. *Consumer behaviour regarding ethical food* There is evidence that ethical food now is also consumed in the developing countries instead of being just produced (Gonzalez, 2009; Gonzalez, 2007; Radman, 2005; de Silva et al., 2013). Similarly a great effort has been on understanding marketing segmentation and factors that motivate consumers in developing economies to buy ethical food (Collins et al., 2013; Gonzalez, 2009; Radman, 2005) and their willingness to pay for organic foods (Gonzalez, 2007) and fair trade coffee (Hu et al., 2012). However, more studies are needed to uncover how consumers perceive private brand versus national brand used for ethical food. Do consumers associate ethical food with a geographical brand? Bienabe et al., (2011) in a study conducted in South Africa found that food processors started to use geographical branding for ethical meat. As we have argued less is known on consumers' perceptions and the association between grazing land and ethical foods. How do consumers perceive ethical food with local retailers' private brand versus international retailers' ethical brand? Ethical food is new items in the market of emerging economies despite the fact most of these foods are grown in these countries. Chang et al., (2013) found in China that health consciousness does not directly influence consumer intention to purchase food product with a food traceability label. Given that, more in-depth case studies to uncover how consumers in emerging economies trust various ethical labels and third party certification organisation are needed.

### **What research methods have been used?**

In order to establish what research methods have been used by studies conducted on food retailing in developing countries the methodology section of each case was reviewed. Attention was given to data collection and data analysis techniques. In general researchers have used qualitative and quantitative methods for data collection and analyses based on different theories and frameworks.

Surveys, interviews, focus group and observations have been employed for collection of primary data. For quantitative method, the types of data collection techniques reported included online survey, face to face survey as well as mall intercepts survey. Online survey has been used only for consumers in China, Taiwan and India (Chen and Lobo, 2012; Chen, 2011; Mandal and Paul, 2012). Other studies used mall intercept or door to door surveys. The use of these techniques was facilitated by the advancement of ICT usage in these countries. Mail methods have been used for the studies of consumer behaviour especially in Asia. For instance, Maruyama and Trung (2009) sent questionnaires to 2000 individuals in Hanoi and 570 were returned (29%). To get access to respondents, researchers particularly in China have been assisted by the government agencies. For instance, Jussaume (2001) worked with the Nutrition Department staff at Qingdao Municipal Hospital in Shandong province.

For qualitative methods, data were collected by using survey interviews. Different formats including structured and unstructured questionnaires were employed during data collection. In general researchers were not transparent in the constructions of instruments and the challenges they face in data collection, such as language barriers and how they dealt with it. However, a few studies did report how they dealt with the problem of language. Yelkur (2000), and Thorgersen and Zhou (2012). To improve validity of their questionnaires pretesting is highly encouraged in survey. However, few studies conducted in developing economies on food retailing used this strategy despite the facts that authors admitted some of the variables were developed in the Western countries. For those who tested their questionnaires the process was still questionable if the respondents were really from the targeted sample of population. For instance, Thorgersen and Zhou (2012) investigating what motivates consumption of organic food in China among

early adopters used MBA students at Sun Yat-Sen University in Guangzhou. In-depth interview, focus group and case studies were given less attention in these studies. This situation indicates that in most cases researchers were applying variables and model developed in Western countries to test hypotheses related to doing business in these countries which are totally different. As the result the failure of most of international companies in developing countries food retailing is not surprising due to lack of reliable findings.

Many sampling techniques have been used for data collections such as random sampling, convenience sampling, stratified random and snow bowling. In, general randomly sampling and convenience sampling were highly favoured by researchers in developing countries. Different techniques were used for recruitment of respondents such as stratifications sampling technique based on income, marital status, and number of children, age and family members. Secondary data have been used mostly with researchers from China for household survey. Davis and Jiang (2007), in a food house hold survey in China used secondary data collected by the Jinilin Provincial Statistical Bureau.

For data analysis there are two categories: one for qualitative data and quantitative data. Qualitative analysis lacked transparency. Authors presented their findings without indicating which methods have been used to draw those conclusions. Furthermore, interview qualitative research seems to dominate and findings were corroborated with the other sources in the developing countries such as the use of newspapers and magazine that are published in a particular country. Despite that weakness one exemplary study is by Chen and Sternquist (2006) that used grounded theory to form the model of food retail buyers' behaviour in China.

In general studies in food retailing in developing economies generated knowledge by using survey methods and quantitative data analytical techniques. This review by no means seeks to underplay the tremendous amount of good efforts that researchers have made collectively to fill our knowledge gaps. However, the critics is intended to highlight that most of the models tested were developed in the developed countries so it is important to have a deep understanding of the consumers and how institutions operate in the developing countries for the success of food retailing. Different authors challenged the use of quantification in the area where research and data are not available such as in most developing economies. So it is important to follow the same model of knowledge generation. However, some studies worth mentioning have started

with qualitative then quantifications for testing of their qualitative findings (Hassan, 2011; in Malaysia and Chen and Sternquist, 2006 in China).

### **What types of food have been focused on the research?**

Studies can be categorised into those examining either imported or domestically produced food or both. Domestically produced food can be grouped into processed and non-processed food. Non-processed foods include both dried and fresh food. Most studies conducted in developing economies focused on fresh fruits and vegetables. Items such as milk, rice, maize flour, meat (beef and pork), chicken, fruits and vegetable are also commonly studied. The types of fruits and vegetable however, were not usually specified. For the studies on milk, focus was on the consumption of milk without indicating brand preferences. Although in developing countries milk processing is a prominent industry and different brands are at the market, researchers just used milk as a general term. In terms of meats, most cases studies focused on beef and pork few studies focused on consumption of other meats such as ruminant animals like sheep and goats. In general few studies focus on the demand and consumption of fish despite the fact many developing countries are surrounded by natural water bodies and there are initiatives for raising of fish ponds.

### **Who have been the main research targets?**

Studies conducted in developing countries collected data from consumer's (working men, house wives, and university students) and in most cases focused on urban consumers. Few studies conducted surveys in rural areas. Few empirical studies in developing countries collected data from managers, owners of stand-alone-modern supermarkets, Chief Executive Officers (CEOs), policy makers, agriculture related university professors, importers and distributors of various food and beverage. Nevertheless, the studies pay less attention to non-managers as the respondents. The skewed nature of these patterns of sampling means that the voice of employees is largely unheard on the growth and challenges of food retailing in developing countries. Front line employees can be a major source of information and performance of retailing in developing countries. For instance, at the early emergence of supermarkets in China employee shoplifting was a major problem. By mid of 2000, however, empirical evidence showed employee shoplifting is no longer a problem (Lau et al., 2001). But there is little knowledge on what has been done by those retailers to control shoplifting both to customers and employees.

### **Theoretical perspective adopted and contributions**

Different theories have been used to explain food retailing in emerging economies. These include, theories of planned behaviour, consumer decision making, supply and demand, high consumer involvement, hedonic pricing, Porter's five forces and generic competitive model and utility model. Furthermore, theories such as meta-theoretical model motivation (3M) introduced by Mowen (2000) has been applied to the effect of consumer's personality on purchase of food. Social trust theory has been used to study consumer segmentation in food supply chain. Another frameworks used to study food retailing in emerging economies are food choice questionnaire (FCQ; Steptoe, et al., 1995) , country of origin theory, involvement theory and the Shwartz value theory.

For studies that have a strong theoretical focus, many of them tend to use Western theories/conceptual models in the field as a benchmark and a starting point to investigate systems of food retail distributions. In general, however large proportions of the empirical studies tend to be insufficiently theoretically informed. Researchers focused more on explaining or rejecting the empirical findings from other areas than explaining the theory governing their studies. However, some scholars' have taken the initiative to develop new models to study developing countries and fragile economies. Worth noting here are Brcic-Stipcevic et al., (2010) study conducted with Croatian food retailers and reflecting of attributes that can be used in other developing countries. Also, Hassan (2011) developed a model to understand of how consumers manage their conflicting values in developing multicultural societies when forming preference with regard to functional food.

There are two major reasons that have been identified by the authors for the minimal contribution in theory/framework development by researchers in food retailing: First most of the published articles from emerging economies used less theory or frameworks but they relied heavily on the empirical findings to justify their research. As a result studies add only an explanation of the outcome but failed to add theoretical subsistence or suggest a framework for a study on their business environment. Second is the overreliance of quantitative analysis for

number of studies on food retailing in these countries. Researchers found themselves were testing theories developed in developed countries without first suggest parameters that are pertinent to the unique nature of emerging economies. For instance, this review has found a lot of studies from China and great efforts by scholars on the country. But only one study worth mentioning here (Chen and Sternquest, 2009) devoted itself to develop a model for knowledge generation in the country. Whilst their efforts acknowledged here, the limited use of theory and frameworks that guide research is a handicap to future studies.

### **Analytical tools adopted**

Studies on food retailing conducted in developing countries used both qualitative and quantitative analytical techniques but, quantitative surveys predominate. Those that have used qualitative means for data collections and analysis mainly are conducted by scholars from developed countries working together with indigenous researchers. Interesting thing is that researchers admit that they are researching new phenomenon of food distribution in their countries, yet quantitative means of testing theories were used. Many different quantitative analytical techniques have been used such as one way ANOVA, confirmatory factors analysis, cluster analysis, structural equation modelling (SEM), the binary probit model, linear regression, Chi-Square and Probit chi-square, categorical regression with optimal scaling (CATREG), multivariate probit model, the rank-ordered logistic regression model (ROLM), the Seemingly Unrelated Regression (SUR), the Linear Approximation of the Almost Ideal Demand System (LAIDS), cointegration, error correction model techniques, and Taylor series mathematical based model. Multimonial logit model (MLM) has been used to test the extent to which country of origin, price and content can predict the category. Furthermore, for analysis of attitudinal inconsistency of organic food and consumer sections multi dimensions scaling (MDS) was employed.

Qualitative analysis studies conducted in developing countries used interviews based data analyse. However, few researchers used different techniques for qualitative data analysis. The worth mentioning study here is the Chen and Sternquist (2006) that used grounded theory techniques and Hassan (2011) employed Venkatesh's ethnoconsumerist and grounded theory.

Developing countries are dynamic and diverse. Therefore, analysis of the data collected from them should reflect the complexity and diversity of the country. Recent findings from China



indicated the need to not take China as homogeneous country in order to understand consumer behaviour. Thus comparative studies across countries in emerging economies are needed to uncover different consumption and purchase behaviour in one country with heterogeneous culture. Currently there are few studies on food retailing in emerging economies taking into consideration comparative studies. Dumistrscu et al., (2013) compared consumers' in Romania and Greece with respect to pasta purchase. Another comparative study conducted in Malaysia and the Netherlands looked at halal food consumption (Che Ghazali et al., 2013). Based on the above arguments more comparative studies among emerging economies are needed, particularly those looking at countries of similar geographical that may share similar cultures but slightly different. Furthermore, most of the food companies and retailers from emerging economies are operating in these countries. For instance Bianchi (2009) observed that the failure of Chilean retailers in Argentina was caused by the failure to understand consumers' behaviour and preferences in those countries. This finding showed the need for more comparative studies to uncover how consumers in developing countries behave.

### **Research gaps and future research directions**

With this research studies as a foundation key set of questions that remain to be discussed in this field: What are the existing gaps in food retailing in developing countries in the midst of inroads from retailers from more developed countries? Are the existing studies keeping pace with advances in retailing theories in the developing countries? Have these studies captured the changing trends of urban food retailing and the practices of policy makers, agri-food suppliers and consumers in emerging economies in a timely manner? A number of research gaps, have been identified in the previous sections of this paper. In this section research themes that are important yet insufficiently researched will be reviewed. It is hoped that this review will serve as a guide to the future studies. These are summarised in the following threads.

- 1. *The changing role of food retailers functions.*** Following the emergence of food modern retailing it has been observed that retailers are pressuring other actors in the value chain to act ethically. These ethical mean include demands for business licence, registrations and presentations of required certificates of suppliers to the buyers (retailers) and good agronomic practices. In actual sense modern retailers are becoming as the

gatekeepers. This role has emerged due to failures of governmental organizations to enforce number of ethical issues including but not limited to, food adulterations practices, tax evasions, weight reductions and over pricing. Retailers have intervened in these situations in order to fill the institutional vacuum and maintain consumers' confidence. These activities are taken as corporate social responsibilities (CSR). In doing so they allow government to collect tax from people whom once where hard to chase such as SMEs. On the other hand, one needs to understand impact of these new roles to consumers, suppliers and policy makers. How consumers perceive this CSR role of promoting SMEs for indigenous modern retailers? Do consumers care about this role?

2. ***Emergence of loyalty card and multi channels*** Modern retailers' use if different channels to sell different types of food are well known. Currently studies have been focused on the acceptance of online payment in particular fish the purchase of fish in Malaysia. The findings of these studies are very important on understanding the impact of touch and texture for fish buying decisions among consumers in developing countries. However, more studies are needed to understand the impact of multiple retail channels and the use of other means of payment instead of cash economy such as loyalty cards and mobile payment on consumers purchasing decisions.

3. ***Impact of food retailers from emerging economies operating in other developing economies*** There are many examples of retailers from developing countries who established their operations abroad. The results are varying. Some companies collapsed such as Shoprite from South Africa divest in India, and Pick 'n Pay fail Tanzania. Despite the failures of these companies some cross boarder retailers in the Asian countries are operating very well in China. This finding is surprising given that overall the China market has been extremely difficult one for foreign companies to penetrate. The works by Bianchi (2009/2011) on the challenges and prosperity of emerging economies retailers have noted this phenomenon. What is needed is a deeper research understanding of the marketing strategies and testing of various theories used by these firms from emerging economies in other emerging economies. Contrary to that is the lack of knowledge from these companies, despite the fact that one could argue that there are homogeneous on the

culture of these cross border companies. But, empirical evidence shows that in Asia it is very hard to have homogenous culture that can influence consumers' decisions.

**4. *Fighting for home markets by developing countries food retailers***; With the booming of modern urban food retailing in emerging economies competition has increased. A number of large retailers today have their operations abroad such as Wal-Mart which accrued more than 35 per cent of its revenue from abroad. Similarly, developing countries retailers are expanding through cross border internationalisation like South African retailers. This result into more competition at their home as well as in foreign markets. How do developing economies retailers respond to the entry of the giant like Wal-Mart. da Rocha and Dib (2002), Bianchi and Mena (2004) presented works that speaks to this issue, looking at how emerging economies retailers respond to the arrival of developed countries retailers. Both above mentioned publications originated from Latin America. Other emerging economies are not well presented such as Africa those in and Asia. An additional focus of this has to be on how local retailers use their long-time home market knowledge to protect of their market share.

## **5. Food retailers marketing strategies**

There are many strategies implemented by retailers in developing economies such as pricing, promotion, embarking on technologies, branding and packaging. Much has been documented on the above mentioned strategies and how retailers practice them. Recently, private brands have emerged as the strongest strategy to be implemented by retailers in order to reach the bottom of pyramid which is estimated to be 40-50 per cent of the population (see Sheth, 2011 for detail). It is well known that a large portion of most retailers' revenue and profit comes from selling manufacturers' brands which competitors offer. To minimize that challenge retailers introduced private brands. In doing so, they intend to reduce dependency on food suppliers' with national brands. In emerging economies retailers also embarked on private brand strategy (Ailawadi and Keller, 2004) argued understanding how a retailer should be positioned and how the brand assortment sold by retailer is related to its image are thus of critical important.

In general emerging economies consumers are face with the shortage of supply while the demand is high. Furthermore, most consumers have budget constraints. As a result, anything offered at a low price will be preferred. Therefore, private brands, which experience has shown are sold at low price will be expected to be favoured by consumers in developing economies and will give retailers ability to penetrate at the large population referred as '*bottom of the pyramid*'. However, consumers in developing economies have been the victims of adulterations of products, food scandals and lack of strong institutions to enforce laws (Sheth, 2011). Some of these are related to brand personality which is intangible. By embarking on private brands retailers are engaging on food value addition. In simple flow of food production one can see, land production, processing, transporting and retailing. However, Arce and Mardsen (1993) argue that in economic terms land based production proportionally represent a minor part of the total value of the product, while social marketing terms is very strong. Here authors refer to the emergence of ethical consumerism in the Western countries and brands such as Fairtrade and the like. One important question that needs a clear strategic answer is on the ability of emerging countries' retailers to maintain on brand management through this long chain. How are retailers going to ensure high quality of food supply that has their brand in countries where there is lack of strong institutions?

### **Concluding comments**

This paper has provided an overview of the main issues for research that have been conducted on food retailing in developing economies in the last decade through reviewing of 154 articles found in 62 journals related to food marketing and agribusiness published in English. For the articles included and those which were not included, this paper has projected the trajectory of modern food retailing in developing economies during the era of massive economic reforms. Significant achievements have been made in terms of number of studies published in scholarly journals on food marketing particular Asian countries such as China, India, Vietnam, Malaysia and Thailand and Latin America. But Africa with exception of South Africa is not well presented with studies on food marketing in the developing economies compared with the investment and transformations that are taking place in the region.

A number of research gaps have been identified. On one hand, there is a need to understand practices of the retailers, consumers, suppliers and policy makers in the developing economies.

First, there are under-researched facets of modern retailing practices in the developing economies. For instance how domestic retailers are defending their home food markets? Host country supplier-retailers relationship and how consumers perceive new retailing formats? Second is how modern retailers cope with specific cultures such as Islamic. Studies from Tunisia and Morocco have shown that rejection of modern retailers that are not adhering to Islamic culture is limited to the individual level. This is contrary to study from Egypt on the collapse of Sainsbury (See Burt and El-Amir, 2008). How non-Islamic retailers cope with these market environments? Furthermore, what retailing marketing strategies are implemented by emerging market retailers in other developing economies country?

In addition, one must we can think about the methodological implications of implementing such research agenda. There is a call by Coe (2004) on the use of multi method approaches combining quantitative and qualitative techniques will surely be necessary to develop full appreciations of new knowledge in the new business environment. Currently most of the studies conducted in developing economies replicated framework and theories generated in the developed countries. This strategy good if the only aim is on testing or verifications, but it limits knowledge generation related to a particular area. Deshpande (1983) argues for new discipline or new *area* (context) (*italic added*) for researchers to generate rich explanatory knowledge they have to use first qualitative methods followed with quantitative methods when attempting to test their findings. Furthermore, case studies methodologies are highly demanded in the developing countries studies on the food marketing.

Sheth (2011) classified developing economies into five factors. One of those is market heterogeneity (see Sheth, 2011 for detail). From this classification we can see that it is very important for researchers from developing economies to have comparative studies on food retailing across countries. Currently some scholars have conducted comparative studies, such as between Romania and Tunisia food retailing (Bouzaabia et al., 2013). More studies of this kind are needed to gain knowledge of business environment in developing economies for the benefit of consumers and growth of the sector. Furthermore, studies on food retailing in developing countries target mostly consumers, policy makers, and CEOs. Other stakeholders have been neglected especially employees and NGOs especially consumer watch dogs. These two are both important for the growth of the sector in developing economies in many ways. So, future studies

must consider both of these groups and the growth of the food retailing sector in developing economies.

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# **The Closer We Are To A Product Category, The Easier The Choice Is?**

## **Consumer Behavior Evidences From Field Experiments In A Restaurant Setting**

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## **Abstract**

The purpose of this study was to evaluate how familiarity to a product category in terms of habits, knowledge and interest is linked to their behavior toward choice. Two experiments respectively test the following hypotheses: participants are to a product category in terms of habits, interest and objective knowledge ; 1) the less likely they are to deliberately reduce the number of their options in a choice set, and 2) the more value they assign to a purposeful choice between products versus getting a random product. In both experiments, products tested were a range of different coffees. Experiments mostly took place in an experimental restaurant. Such field experiments enable to observe representative behaviors, while seeking for control through behavioral and experimental economics methodologies (Lusk & Fox, 2003). Results confirmed our first hypothesis, as subjects who deliberately reduce the number of their alternatives were more distant from the products considered. In proportion, women also had a higher chance to reduce the number of their alternatives. Our second hypothesis was not confirmed at the level of the group. But men who were willing to pay a premium for choosing a product by themselves were indeed closer to the coffee category overall. Gender was a factor of importance in the results of these two experiments. Taken all together these results show that several factors influence the perceived value of choice among a set, and suggest that distance to the product category and gender are some of these factors for coffee offered in restaurant.

**Keywords : assortment size, choice, consumer behavior, field experiment**

## Introduction

Apart from a few exceptions, French restaurants usually do not offer several choices of coffee to their customers. In comparison with all the other products ordered during a meal, little attention is paid to the order and afterwards to the tasting of coffee in restaurants. To introduce a choice between different coffees in restaurants could be a way to focus customers' attention on the products characteristics like origins, blends, roasting, while ordering and then tasting, and thus to better promote coffee in restaurants. In supermarkets, the sales of coffee pods or capsules, allowing to prepare coffee by the cup with a specific machine, have been constantly rising for years now and French get more and more used to choosing their coffee from a set of several options at home (Euromonitor, 2014). But among how many coffees would customers of a restaurant prefer to choose : 3, 6, 12, 24 ? How many options should be implemented in such context ? Are more options better ? Or could too many alternatives in fact decrease the value of the offer for restaurant customers ? Subjects who are more familiar with the coffee category in terms of habits, interest and knowledge, are they less spoiled for choice when facing many alternatives ? Does the optimal assortment size depend on consumers' distance to the product category, or is it the same for all ?

Our goal is to verify that the perceived value and the attractiveness of choice in a product set depends on consumers distance to the product category considered.

### *Are more options always better for consumers ?*

The idea that more choice always leads to a higher consumer satisfaction is misguided. Based on the classical theory of economics, more freedom to choose means a higher chance for the consumers to pick the product that stands the closest to their ideal in terms of preferences for each attributes, and therefore to maximize their utility. Agrifood industries and researchers make great efforts to develop quick methods to localize this *Ideal Product*'s coordinates on sensory maps, in order to develop variants of products that will allow consumers to maximize their satisfaction (Ares, Varela, Rado, & Giménez, 2011; Faye et al., 2006; Varela, Beltrán, & Fiszman, 2014; Worch, Lê, Punter, & Pagès, 2013).

In practice yet, all of us have already experienced the feeling of being spoiled for choice when facing too many variants of the same product. Evidence in psychology suggests that having to choose among too many options may in fact lead to poor choice and dissatisfaction. In 1979 already, Kahneman & Tversky noticed in experimental lotteries that subjects perceived the value of a loss more than the value of a gain of an equivalent amount, leading to the today well known Prospect Theory (Kahneman & Tversky, 1979). Based on the Prospect Theory, Schwartz suggests that each additional option in a choice set is a gain in perceived value of the assortment by consumers. On the other hand, he underlines that the difficulty of choosing increases in terms of information to process, time consumption or regrets that can appear

afterwards. This “cost of choosing” might be perceived as a greater loss of value than the corresponding gain provided by the increased number of options (Schwartz, 2004).

Based on these assumptions, for each option added to a set that already satisfies us, the perceived value of the set actually decreases. Indeed, as the number of available options increases, the cognitive efforts required to make a choice might become too important. In such a situation, we might probably not choose our *Ideal Product* but just the nearest, the cheapest or the most familiar one, or maybe we will even give up on the choice (DellaVigna, 2009; Johnson et al., 2012), in order to avoid complex thinking (Kahneman, 2011).

Different research teams in psychology and economics have experimentally studied the effects of the size of food products sets on consumer behavior, showing contrasting results.

Iyengar & Lepper found a *Choice Overload* effect at a jam tasting booth set-up in a supermarket. Experimenters alternatively offered customers to taste 6 or 24 flavors of jam and gave them a 1\$ discount coupon on the purchase of a jar. Even though there was a higher proportion of customers stopping at the booth when there were 24 flavors displayed, six times as many customers purchased a jar when the set of 6 flavors was displayed (Iyengar & Lepper, 2000)

Research of Arunachalam et al. on *Excessive-Choice-Effects* contrasts these results. In three experiments they studied the effects of having to choose a soda either between a small set of 6 or a large set of 24 options (Arunachalam, Henneberry, Lusk, & Norwood, 2009). The first experiment looked at preferences between the two sets within one group of subjects. When faced with the two sets, without knowing the options inside each set, a majority of participants (58%) in fact preferred to choose among the larger one. The second experiment compared preference between 2\$ or a soda, between one group who would have to choose the soda in the small set and one group who would have to choose it in the large one. When offered 2\$ or a soda from the large set, 30% of the participants chose a soda, while only 12% did on the small set. Finally in the third experiment, resell values of a soda from each set were elicited in an experimental auction. Participants' willingness-to-accept for the soda were not significantly different if it was to be chosen from the small or the large assortment.

In both studies *Choice overload* or *Excessive-choice-effects* were observed, but not in the same proportion and it never concerned all consumers. Researchers in psychology suggest that personality traits (Schwartz et al., 2002) or culture (Rozin, 2005) influence interest toward a large assortment of options. Marketing research explores how other factors like item reduction (Beneke, Cumming, & Jolly, 2013) or affect (Spasova & Isen, 2013) influence consumers' satisfaction regarding the number of options available. As suggested by Chernev, Böckenholt and Goodman, several factors might in fact have an impact on

perceived value and attractiveness of choice among a products set, and these factors have to be further explored to understand not only *if* but *when* there is too much choice (Chernev, Böckenholt, & Goodman, 2010).

***Or does optimal number of options depend on the product category and subjects ?***

Consider the example of coffee offered in restaurants in France. What would the result be if we tested a Coffee Menu of 6 options versus a Coffee Menu of 24 options ? A majority of customers would probably already be overwhelmed to choose among 6 alternatives.

We suppose that consumption familiarity, level of involvement and of objective knowledge of the product category considered are moderating the perceived value and the attractiveness of choice in a product set, and propose to experimentally test this assumption. In other words we suggest that how much is too much partly depends on consumer's habits, interest and knowledge toward the category of products considered. These three components of familiarity to a topic are regrouped in social psychology under the concept of distance to an object (Dany & Abric, 2007). Consumers' distance to the product category considered was not taken into account yet when studying their attitude toward choice and the value they assign to it. However, many evidences in food research, particularly in the study of wine expertise, shows that theoretical and practical knowledge of products modifies the perception and the representation of a product category (Ballester, Patris, Symoneaux, & Valentin, 2008; Langlois, Dacremont, Peyron, Valentin, & Dubois, 2011; Parr, Mouret, Blackmore, Pelquest-Hunt, & Urdapilleta, 2011; Sáenz-Navajas, Ballester, Pêcher, Peyron, & Valentin, 2013; Torri et al., 2013; Urdapilleta, Parr, Dacremont, & Green, 2011). Different consumer behaviors toward choice might also arise from different representations of the products in their mind, depending on their distance to the product category in terms of habits, interest, and knowledge.

This study was designed to evaluate how consumers' distance to the product is related to their attitude toward choice. Two experiments respectively test the following hypotheses: the more familiar, or the closest participants are to a product category 1) the less likely they are to deliberately reduce the number of their options in a choice set, and 2) the more value they assign to a purposeful choice between products versus getting a random product.

In both experiments, products tested were a range of coffee drinks. Experiments mostly took place in a real setting of consumption in an experimental restaurant, in order to observe representative attitudes toward choice outside a lab, while seeking for a high level of control thanks to methodologies based on behavioral and experimental economics (Lusk & Fox, 2003).

All participants filled a questionnaire aiming at evaluate their distance to the product category considered in terms of level of habits, interest and knowledge. The questionnaire was inspired from the concept of distance to an object (Dany & Abric, 2007) but adapted to our focus : the distance to a product category. The *habits* part regrouped questions relative to equipment, frequency or diversity of consumption. The *interest* part included statements on perceived expertise, preferences, or interest for the product category, some of them inspired by Laurent & Kapferer's involvement profiles (Kapferer & Laurent, 1993). Participants had to indicate their level of agreement on a 4 point-scale. The *knowledge* part regrouped objective questions on the products in the form of a quiz on coffee geography, botanic or preparation. A score was calculated for each of these three parts, and the three were added up to calculate the overall distance score to the product category. The higher the overall distance score was, the closer subjects were to the product category. In both experiments, when a question was answered the same way by a large majority of respondents (more than 80%), it was considered non discriminant and not taken into account in the calculation of the score.

## **Experiment 1**

Experiment 1 aimed at testing the hypothesis that the closer the subjects are to the product category, the less likely they are to deliberately reduce the number of their alternatives. This assumption is based on the idea that subjects who are closer to the product category probably perceive variants as a choice between imperfect substitutes, for which they have developed “home-grown” preferences. Therefore they are more likely to seek a large number of alternatives. Conversely, subjects who are distant from the product category may perceive the alternatives as a variety of perfect substitutes, for which they only have constructed preferences but no “home-grown” ones. They are more likely to seek a small number of alternatives.

Experiment was designed following the Experiment of Voluntary Reduction in Choice of Arunachalam et al. (2009). In this study they observed how many subjects within one group preferred to choose among a small set of 6 sodas, and how many preferred to choose among a large set of 24 sodas.

To ensure that the sizes of the assortments consisted in an actual small number and large number of alternatives for coffee, a preliminary online survey was conducted among 30 respondents. Indeed, our aim was not only to observe the proportion of consumers choosing each set but also to compare the distance to the product category between subjects of the two groups. Therefore, it was important for us to make sure that not everyone would choose the same assortment. A small set of 3 coffees was chosen, as it was “just about right” for some participants but also “not enough” options for many of them. Conversely, a large set of 8 coffees was chosen as it was “just about right” for some participants and “too many” options for others. As we intuited prior to this survey, 24 coffees in a restaurant were judged as “too many” options by all the respondents. The important question of this experiment was : Is the fact of deliberately reducing the number of alternatives for choosing linked with subjects’ distance to the product category ?

## ***Material and method***

### ***Subjects***

Experiment took place in two settings : with customers of an experimental restaurant at the end of the meal, and with students and staff recruited on a university campus. A total of 161 individuals participated : 92 in the experimental restaurant setting and 69 on the university campus. As expected based on the experiment locations, respondents from the restaurants were older than respondents from the campus (Figure 1), but the rate of men and women was independent from the location (no significant difference in Pearson Chi-square test).

		Campus	Restaurant	
N=161		69	92	
Gender	Women	32	51	
	Men	37	41	
Age	Mean	25,13	47,46	***

\*\*\* p-value <0,001, two-sided t-test for independent variables

**Figure 1 - Characteristics of subjects in each location**

### *Procedure*

Participants were offered a coffee that they could choose either among a small set of 3 options or a large set of 8 options, as defined by the prior online survey. Participants were asked among which set they wanted to select their hot drinks before they could see options available. Once they had chosen their set they were handed a questionnaire marked with 3 or 8, allowing them to choose their coffee from the corresponding booth. Both booths were hidden behind screens, so that the options available in each booth could not influence their choice. Coffees differed in terms of origins and blends but apart from their reference names, no specific information about taste was given to subjects at the booth. Products offered at the booth with 3 options were a subset, regularly rotated, of the 8 options from the larger set. Participants were told so if they asked what were the differences between products at the two booths, but very few did. All coffees were espressos. Subjects then filled a questionnaire at their table while drinking the coffee. The questions about consumer distance to the product category included in the survey are summarized in Table 6. There were also a few questions on consumers' demographics.

Total distance	Type of question	Number of questions
Habits	Frequency of consumption, equipment, diversity of consumption	3
Interest	Perceived expertise, preferences, interest	7
Knowledge	Quiz	8

**Table 6 - Types of questions included in the questionnaire**

### *Results*

As shown in Table 7, data indicate that among the 161 participants, 89 (55%) chose the smaller set, hence deliberately reducing their alternatives to 3 options instead of 8. Overall distance score to the product category was significantly higher among subjects who choose their product out of the larger set. A greater proportion of men chose out of the large set, whereas a greater proportion of women chose out of the



small set, even though the overall distance's score to the category was not significantly different between men and women (p-value > 0.05, two sided t-test for independent variables).

		Small set	Large set	
N=161		89	72	
Gender	Women	54	29	**
	Men	35	43	
Age	Mean	38,85	36,69	-
Scores	Habits	3,7	3,85	-
	Implication	3,11	4,00	**
	Knowledge	2,39	3,21	*
	Total	9,19	11,05	*
Context	Campus	38	31	-
	Restaurant	51	41	

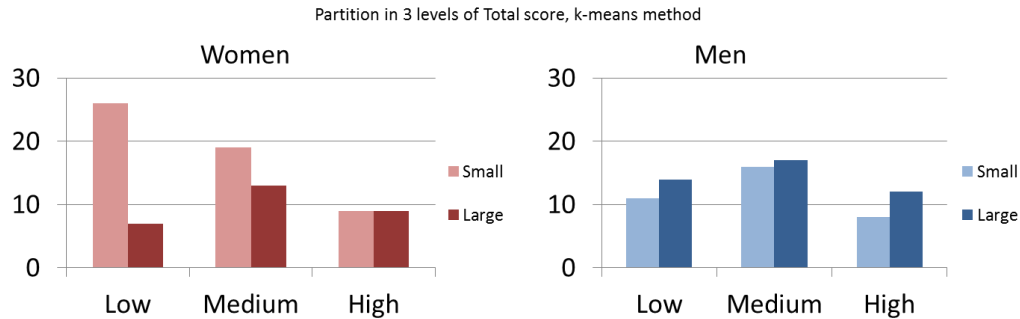
Significant p-value : \*<0,05,\*\*<0,01 - two sided t-test for independant variables

**Table 7 - Characteristics of subjects choosing each choice set**

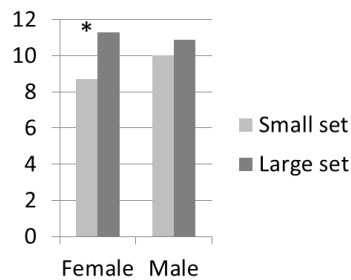
Following the k-means method, subjects were then partitioned in 3 levels of scores: low, medium and high (Table 8). Plots of the score levels according to the chosen set, by gender (Figure 2), allow to see that women with a medium or low score, in other words quite distant from the product category, rather picked the smaller set. Whatever their score, men were more likely to pick the large choice set overall. The difference in scores between the groups choosing the small or the large set was not significant for men but it was for women (**Error! Reference source not found.**).

Class	Score	N	Women	Men	Chi-sq.
Low	< 8	58	33	25	N.S
Medium	8-13,5	65	32	23	
High	> 13,5	38	18	20	

**Table 8 - Summary of the partition of subjects in 3 class of scores, k-means method**



**Figure 2 - Chosen set according to level of score, by gender**



**Figure 3 - Average scores for the groups choosing the small or the large set, by gender**

A majority of participants deliberately reduced the number of the alternatives among which to choose their coffee from 8 to 3. Some effects of offering too much choice were observed with only 8 products, showing that these effects are not only related to the number of options but also to the product category considered.

In this experiment, subjects who deliberately reduced the number of their alternatives had a significantly lower average distance score and were therefore more distant from coffee in terms of habits, interest and knowledge. In proportion, there were also more women among this group.

These results validate our hypothesis that subjects who are closer to the product category are less likely to deliberately reduce the number of their alternatives. It should be noted that these results were mostly driven by women and that gender was an unexpected factor of importance to determine the probability that a subject would choose the small or the large set.

## Experiment 2

Experiment 2 aimed at testing the hypothesis that the closer the subjects are to the product category, the more likely they will be willing to pay a premium to choose a product by themselves rather than to pick a random product from an assortment. This assumption is based on the underlying idea that subjects who are closer to the product category may perceive the alternatives as a choice set of imperfect substitutes, for which they have developed “home-grown” preferences. Conversely, subjects who are distant from the product category may perceive the alternatives as a variety of perfect substitutes, for which they have only constructed preferences but no «home-grown” ones. They are therefore less likely to be willing to pay a premium for having the possibility to choose.

The objective of this experiment was to answer this question : Is willingness-to-pay a premium for choice linked to subjects’ distance to the product category considered ? And, as a gender effect was observed on the first experiment, does gender impact this link ?

### ***Material and method***

#### *Coffee Menus and scenarios*

In this experiment, customers of the experimental restaurant were presented with the same number of coffee alternatives, but different types of product categories: a Coffee Menu by Origin on week 1 and a Coffee Menu by Preparation on week 2, both including 4 items. In the Coffee Menu by Preparation were coffees prepared with different brewing techniques, with or without dairy. Consumers were expected to be closer, in terms of habits, interest and knowledge, to the different coffee preparations and thus to be willing to pay a greater premium to choose from this Menu. Their willingness-to-pay (WTP) were elicited for two scenarios each week : the *self-choice scenario*, according to which they would choose by themselves a coffee from the menu, and the *random-draw scenario*, according to which they would randomly pick a coffee from the menu. Only one of the two scenarios, randomly drawn by one customer, would take effect at each table.

On week 3, the Coffee Menu by Origin was presented again but the WTP elicited were for the *self-choice scenario* and for the *barista-selection scenario*, according to which they would get a coffee selected from the menu by the barista. This was made in order to check whether the WTP premium observed for *self-choice* on week 1 was really for the fact of choosing or just to avoid getting a random product. The idea was that participants might be willing to pay more for the *self-choice scenario* than for the *random-draw* just to avoid the risk of chance, but would rather prefer to avoid the choice and delegate it to a third party if they could. Therefore they might be willing to pay even more for the *barista-selection scenario*. Coffee Menus and scenarios for which willingness-to-pay was elicited each week are summarized in Table 9.

Week	Menu	Scenarios
1	Origins	Random draw
		Self Choice
2	Preparations	Random draw
		Self Choice
3	Origins	Barista selection
		Self Choice

**Table 9 - Coffee Menu and scenarios by week**

### *Participants*

Participants were customers from the experimental restaurant willing to order a coffee at the end of their meal. Over 14 meals, 231 customers participated and filled a questionnaire without missing data for our analysis: 75 on week 1, 86 on week 2 and 70 on week 3. Individual characteristics of the subjects are summarized in Table 10. Analysis of variance revealed non-significant difference in average age and scores of participants between the three weeks and Pearson Chi-square tests revealed no difference in the proportion of men and women or in the participation rate during lunch or dinner from week to week.

Week		1	2	3	
Participants	N= 231	75	86	70	
Meal	Lunch (Number of meals)	45 (3)	55 (3)	36 (2)	N.S
	Dinner (Number of meals)	30 (2)	31 (2)	34 (2)	
Gender	Women	36	47	33	N.S
	Men	39	39	37	
Age	Mean	47,00	48,25	47,77	N.S
Scores	Overall Distance	26,73	27,66	28,37	N.S
	Habits	13,1	12,35	12,55	N.S
	Interest	12,8	14,33	14,14	N.S
	Knowledge	9,82	9,77	10,69	N.S

N.S.: No significant difference at 5% level of confidence in Pearson Chi-square test for frequencies and in Anova for average means

**Table 10 - Summary of participant's characteristics by week**

## *Procedure*

Before the beginning of their meal, customers had to read a few slides on electronic tablets, explaining the general principles of the BDM auction (Becker, DeGroot, & Marschak, 1964). The presentation included an example with a woman bidding for a glass of champagne, a summary of the principles in a few steps and a schema, so that all participants would be able to understand properly the BDM mechanism (Appendix 1). Customers were encouraged to ask questions when the experimenter came back to get the tablets. An important message was that customers would have the opportunity to submit bids for a hot drink at the end of the meal according to these principles, and that submitting bids implied buying the product at the drawn price if participants won the auction, and not being able to buy it if they lost it.

Before dessert, customers were told that “a menu of 4 coffees of different origins/preparations of coffee was available and that the auction was for a coffee from the menu. No details about the actual products included in the menu were given beforehand.

Customers willing to participate had to write their willingness-to-pay for a coffee from this menu on a paper, for each scenario (*self-choice* and *random-draw* week 1 and week2, or *self-choice* and *barista-selection* week 3). Participants were told that only one of the two scenarios, randomly drawn by one of them, would take effect. According to the rules seen at the beginning of the meal, they would also draw a price for their table and would have to buy a coffee from the menu if the amount they were willing to pay was above this price. Participants were also informed that if they did not buy a coffee from the menu at the end of the sale, they could still order the usual coffee at 2€ at the bar.

Then a scenario and a price were drawn at each table and compared to the willingness-to-pay of each participant at the table. If for this scenario participants were willing to pay more than the price drawn, they had to buy a coffee from the menu at the price drawn and according to the rules of this scenario. Otherwise they could still order the usual coffee at 2 euros from the bar.

To make the experimental auction really incentive-compatible, after dessert participants had to bring their leaflet to the bar and to pay cash for the coffee. Depending on the scenario drawn and the outcome of the auction, they chose a product from the menu, they draw one by chance from a jar, they got the *barista-selection* or could order the usual coffee from the bar.

### *Questionnaire*

While drinking their coffee, each participant answered a questionnaire about their distance to the products in terms of habits, interest and knowledge, as well as on their individual characteristics like gender, age and professional occupation. The type of questions included for calculating the overall distance to the product category are summarized in the next table (Table 11). Questions were sometimes asked for three sub-categories of products: coffee in general, coffee origins and coffee preparations.

Total distance	Type of question	Subcategories and number of questions
Habits	Frequency of consumption, equipment, diversity of consumption	Coffee in general (4)
Interest	Perceived expertise, “home-grown” preferences, involvement	Coffee in general (6), Coffee origins (3), coffee preparations (3)
Knowledge	Quiz	Coffee in general (7), Coffee origins (4), coffee preparations (1)

**Table 11 - Types of question included in the questionnaire**

In the comparisons of distance to the two coffee Menus, habits and knowledge scores were based on specific questions for the category and average scores cannot be strictly compared at the level of the group. Comparisons of answers for the two types of product category considered is possible only for the interest part of the questionnaire, as statements were formulated the exact same way for the two product category considered: coffee origins and coffee preparations. Therefore other questions were added to evaluate the presence of clearer “home-grown” preferences toward products of each category. After having seen the items on the menu, participants were asked to rank their preferences if they had some. If there were some items they would never have chosen, they were asked to mark them by a cross. Proportion of respondents giving a ranking and marking some products can be compared between weeks.

## Results

### Coffee categories

Respondents of all three weeks taken together, the overall interest score was significantly greater on Coffee preparations than on Coffee Origins. There was also a significantly greater proportion of participants giving a ranking of products and marking some products as not wanted for the Coffee Menu by Preparation presented on week 2 than for the Coffee Menu by Origin presented on week 1 and 3 (Table 12).

	Origins	Preparations	
Rankings	62%	88%	***
Rejected products	1%	17%	***
	(N=145,w1&3)	(N=86,w2)	
Interest	3,22	5,85	***
	(N=231, all)	(N=231, all)	

\*\*\*p-value <0,001 in Chi-square test for proportions and in student t-test for means

**Table 12 - Proportion of rankings, rejected products and average implication score for each type of menu**

### Elicited willingness-to-pay each week

Average willingness-to-pay for each menu and each scenario are summarized in Table 13. It also includes the numbers of individuals willing to pay more for one or the other scenario each week. Analyses of variance (ANOVA) showed that significant differences exist between weeks in the average WTP for the *self-choice scenario*, for the “*alternative scenario*” (*random-draw* or *barista-selection*) and for the gap between WTP for the two scenarios. Averages with the same letters in Table 13 were not different according to multiple comparisons of means by Tukey contrasts.

Week 1 vs. Week 2 – Willingness-to-pay elicited for the *self-choice* and *random-draw scenarios* were significantly higher for the Coffee Menu by Preparation on week 2 than for the Coffee Menu by Origin on week 1.

During each week, the willingness-to-pay for *self-choice* was significantly higher than for *random-draw* (p-value < 0.01 in paired t-test). 42 out of 75 subjects week 1, and 51 out of 86 subjects week 2, were willing to pay more for this scenario. The large majority of the others gave the same WTP for both scenarios. The average premium for choice, that is to say the WTP for a chosen product minus the one for a random drawn product, was positive and not significantly different between these two weeks.

Week 3 – In comparison to the two previous weeks, willingness-to-pay for the alternative scenario to *self-choice* was significantly higher when it was *barista-selection*. The average premium for *self-choice* was negative and significantly lower than week 1 and 2.

Week	1	2	3	
Menu	Origin	Preparation	Origin	
Alternative scenario	Random Draw	Random Draw	Barista selection	
N =	75	86	70	
Self-Choice	2,47	2,95	2,65	**
	a	b	ab	
Alternative	2,15	2,51	2,95	***
	a	b	c	
$\Delta$ Self-Choice - Alternative	0,33	0,44	-0,29	***
	b	b	a	
Self choice = Alternative	26	34	21	
Self choice > Alternative	42	51	16	***
Self choice < Alternative	7	1	33	

Significant anova factor \*\*: p-value < 0,005, \*\*\*: p-value < 0,001 - Multiple Comparisons of Means by Tukey Contrasts : value with different letters are different with a 95% confidence interval - \*\*\* significant Chi-square test, p-value < 0,001

**Table 13 - Willingness-to-pay elicited each week**

#### *Link between distance to the product category and willingness-to-pay a premium for choice*

Results are based on the comparisons of two groups. The group of participants willing to pay a premium to choose a product by themselves on the one hand, and the group of participants who were not willing to pay a premium to choose a product by themselves on the other hand. No significant difference in overall distance to coffee was noticed between these two groups, neither on a global level, nor from week to week

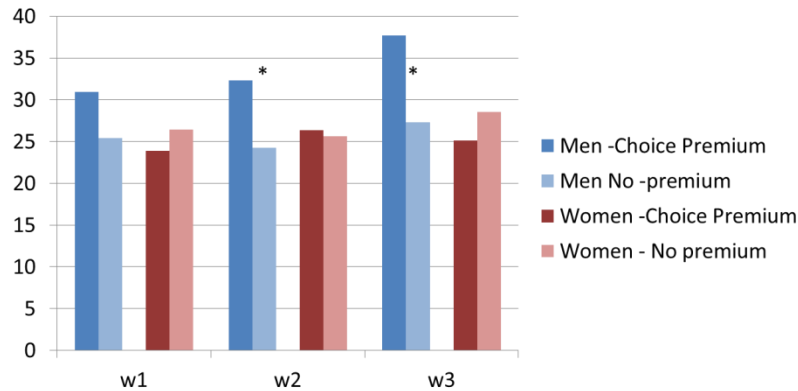
#### *Men vs. Women*

As experiment 1 showed that gender influences the attitude toward the choice of coffee, we had a look at the link between distance to the product category and willingness-to-pay a premium for choice by gender.

Each week, men had a higher scores of distance to the product category than women, but it was significant only for the interest part of the score, not for habits or knowledge. When looking at men's data only, the group willing to pay a premium for choice had a significantly higher overall score in the questionnaire concerning their distance to the coffee category (two sample t-test, p-value < 0.05). In other words, Men who were willing to pay more for the *self-choice* scenario than for the other scenario



had a higher score in the questionnaire of distance to the coffee category overall, especially week 2 and 3 (Figure 4).



**Figure 4 - Average score of subjects according to their gender and WTP a Choice premium**

### ***Discussion***

Participants were willing to pay more for the Coffee Menu by Preparation, whatever the scenario of choice was. The premium for choice was not significantly higher for the Coffee Menu by Preparation, even though there was a greater interest score for the different coffee preparations, and a greater proportion of participants expressing their likes and dislikes, showing more developed preferences for this category.

Results suggest that, overall, participants preferred choosing a product by themselves than to randomly draw one, independently from their relation to the product category. But the greater willingness-to-pay for the *barista-selection* on week 3 shows they also preferred to delegate the choice to a third party if possible. Therefore, willingness-to-pay measured was maybe not exactly for the fact of choosing but rather for the fact of “being free to choose” or “not let the chance decide”. It could be interesting to see if proportion of the participants willing to pay more for the *barista-selection* would be the same with the Coffee Menu by Preparation than with the Coffee Menu by Origin. This comparison might allow to better assess the attractiveness for consumers of choosing for themselves in a product category, compared to someone else expert choosing for them.

There was no direct link between overall distance score to the coffee category and the willingness-to-pay a premium for choice at the level of the group, except for men. The question is whether men answer differently to the questionnaire, or whether they behave differently with comparative levels of scores. A

next experiment should control this parameter, for example by selecting participants whose scores would not differ between men and women.

The way choosing was presented also had an impact on its perceived value. Indeed the willingness-to-pay to choose a product from the Coffee Menu by Origin was significantly lower during week 1, when the alternative was a *random-draw*, than during week 3 when the alternative was the *barista-selection*.

## **General Discussion**

We expected that the closer participants were to a product category 1) the less likely they would be to deliberately reduce the number of their options in a choice set, and 2) the more value they would assign to a purposeful choice between products.

Results confirmed our first hypothesis, as subjects who deliberately reduced the number of their alternatives were less familiar with coffee in terms of habits, interest and knowledge. Proportionally, women were also more likely to reduce the number of their alternatives.

Our second hypothesis was not confirmed at the level of the group. But men who were willing to pay a premium for choosing a product by themselves, instead of a product drawn by chance or selected by a third party, were indeed closer to the coffee category overall.

Gender was a factor of great importance in the results of these two experiments. For coffee in restaurants, men were more attracted by a larger assortment of products than women, independently from their distance to the category (Experiment 1). The ones willing to pay a premium for choosing a product by themselves in the menu, rather than a product drawn by chance or selected by a third party, were closer to the coffee category overall (Experiment 2), which was not the case for women.

Taken all together these results 1 ) illustrate that several factors influence the perceived value of a products set, and the fact of choosing from this set 2) suggest that distance to the product category and gender are one of these factors for coffee offered in restaurant.

These findings support the view that consumer behavior is complex and that the attractiveness of a choice set and of the fact of choosing is probably influenced by many individual factors like personality trait or mood, by contextual factors like environment, time of the day, assortments present, and by product-related ones. A larger assortment can have a greater, or less value, depending on all these factors.

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## Appendix 1

### Welcome to the Experimental restaurant

As part of a research project, you will take part in a sale of hot drinks following special rules at the end of this meal.

While waiting for your next dish, you can discover this special rules.

Example with an aperitif



### Example with an aperitif

A champagne glass is offered to Ms. Dupont as an aperitif.

1. **Ms. Dupont is willing to pay up to 7,50€** for this glass. She writes down her **maximal amount** on her paper.
2. Then she **draws the price of 5,20€**.
3. As she was willing to pay more, she **buys the glass at the price of 5,20 €**.



Why is it in the interest of Ms. Dupont to write down the true maximum amount she is willing to pay ?



Why is it in the interest of Ms. Dupont to write down the true maximum amount she is willing to pay ?

Imagine Ms. Dupont writes down an inferior amount to the one she is willing to spend, like **4,10€**. Then she draws the price of **5,20€**. **She doesn't buy the glass**, even though she was willing to pay up to 7,50€.



• • •

Shoot, I would have liked to buy it at this price !

Conversely, if she writes down **12€**, she takes the risk of having to **buy the product** at a higher price than the amount she was willing to pay, for instance if she draws **the price of 9 €**.



• • •

Shoot, I didn't want to buy at this price !

Your sale

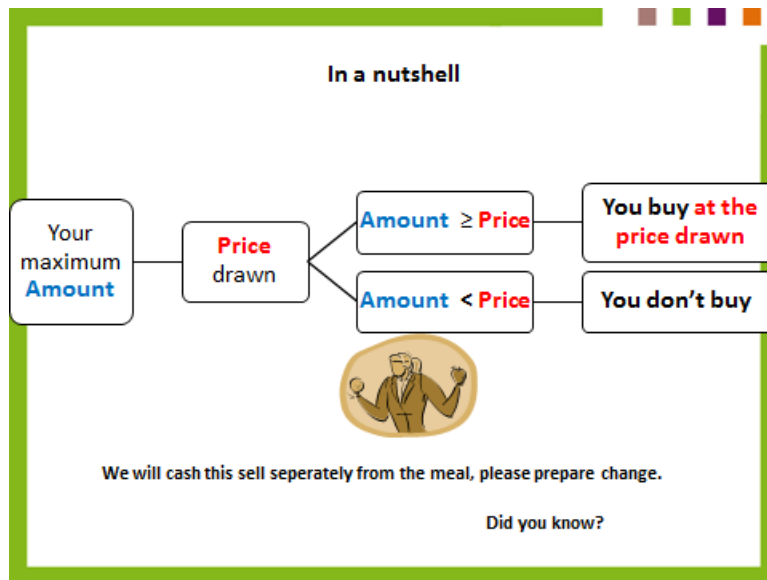


The sale of hot drinks at the end of the meal will follow the same rules :


1. To buy the offered hot drinks, you will have to write down **the amount you are willing to pay**.
2. Then **you will draw its price for your table today** from an envelope.
3. If you wrote an **amount superior or equal to this price**, you buy the hot drink **at the price drawn**. Otherwise you don't buy it.

In a nutshell





**Did you know?**



**The best strategy in this type of sale is to indicate the true maximum amount you are willing to pay.**

This experimental auction mechanism called BDM, is named after the researchers who published about it in 1964 : Becker, Degroot & Marschak.

**See you after your main dish to know more about the hot drinks we offer today!**

**Thank you!**



# **Local And/Or Organic: A Study On Consumer Preferences For Organic Food And Food From Different Origins**

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## **Abstract**

The purpose of this paper is to get a deeper insight into consumer preferences for different food products varying in their places of origin (i.e. local, Germany, neighbouring country, non-EU country) and production practices (i.e. organic vs. non-organic). Therefore, consumer surveys combined with choice experiments were conducted with 641 consumers in eight supermarkets in different parts of Germany. Multinomial and mixed logit models were estimated to draw conclusions on the preference structure of consumers with regard to four different food products, i.e. apples, butter, flour, and steaks.

Results indicate that consumers prefer locally produced food over organic products. However, conclusions should not be generalized since preferences vary for different product types. While the coefficient of the attribute price is quite small relative to the other coefficients for steak, the price coefficient is greater in the models for butter and flour compared to the other coefficients in these models. Looking at the willingness-to-pay estimates for 'organic' and 'local', the information that food was produced locally resulted in higher willingness-to-pay (WTP) estimates than the information that a product was organic for all four products. Even though consumers have similar associations with local and organic food products, they have varying preferences for both product quality indications and do not seem to face a trade-off between local and organic food products. As preferences for origin attributes and organic production vary between different food products, market actors should design marketing activities accordingly. So far, the experiment was only carried out in German supermarkets and included four different food products. Further research in other food outlets, in other countries and for more products would allow for more general results.

# **Significance Of Food Losses In The German Food Industry:**

## **A Qualitative Research**

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## **Abstract**

Sustainability has become an important issue in the food industry, which will probably still increase in the future. Meanwhile, a variety of food products are advertised with various sustainability aspects and companies of the food industry drive different strategies to get a better environmental achievement. In this context, the topic of food losses gains in importance, too. By means of qualitative interviews with experts of leading companies in the German food sector, the issue of food losses was obtained to get an insight into the topic by manufacturing companies and to show how they implement this issue. In total, in the agri-food industry the topic of food losses is of high relevance, and although consumers show great interest in environmental friendly products or companies, no company uses the topic of food losses as a differentiating factor in competition. But due to previous investigations regarding consumer behaviour concerning environmental conscious products, there are ways to get advantages in competition.

**Keywords:** food losses, food waste, qualitative research, expert interviews, sustainability

## **Introduction**

The food industry is characterised by increasing consumers' interest especially in sustainable food and environmental aspects (Fraj and Martinez, 2006). Further food characteristics, like origin or quality, gain importance (Cabinet Office, 2008). This leads to a change of consumers' values and lifestyles (Fraj and Martinez, 2006). Therefore, the issue of food safety is of high relevance at company, political and consumer level (Jensen and Sandoe, 2002 and Grunert, 2005). In recent years' significant developments concerning methods of food production and processing were carried out (Jensen and Sandoe, 2002). But the production and consumption of food is still connected with a permanent increase of the carbon, water and ecological footprint, although sustainability is getting annually of higher importance (Verain et al., 2012).

In the light of rising consumer interests in sustainable food, it is contradictory that annually one third (1.3 billion tonnes) of food produced for human consumption is discarded (Kranert et al., 2012 and Gustavsson et al., 2011). In Australia 10 % of wasted food goes to landfills, which means annually 3 million tonnes of food losses. This corresponds to 15 % of the whole wastage (20 million tonnes per year) (Morgan, 2009). In Germany along the supply chain 10.9 million tonnes of food losses occur (Kranert et al., 2012), while in the UK 15.7 million tonnes of food are wasted (Cabinet Office, 2008). Thus 4.1 million tonnes of food are wasted by manufacturers and 1.6 million tonnes by retailers (DEFRA, 2007).

In developed countries most food losses occur at consumer level, followed by production and handling/storage. The lowest waste rates of food arise at processing and packaging (Lipinski et al., 2013). The amount of food losses inter alia is affected by natural characteristics, like shelf-time or demand modifications, and also because of market trends, like the increasing demand for fresh products and/or products out of season (Mena et al., 2011). But the number of environment-conscious consumers is rising. More consumers are conscious of environmental problems and try to prevent own activities, which effect the environment. This consumer segment is described by living ecologically and environmentally conscious, recycling products and participating in actions to protect the environment (Fraj and Martinez, 2006).

Considering that human population is increasing and a scarcity of food resources, it is crucial to avoid food losses and to provide more food for human consumption. The avoidance of food losses can contribute to rising food disposability without an increase in production (Hodges et

al., 2011). Further consumer requirements orientate on low environmental impacts during the production and processing of food. Therefore, it is necessary to reduce food losses at all levels of the entire supply chain. On this account, this work focuses on the relevance of the issue of food losses in the German food industry, to elevate data about the current state-of-the-art in companies and to deduce afterwards recommendations to reduce food losses. The gained data of this qualitative research is needed to get insight into the topic of food losses from the view of the food industry and to demarcate the subject for a subsequent target-oriented quantitative survey.

### **Food Losses at Processing and Packaging Stage**

Food losses accrue in developing as well as in developed countries, whereby the origins differ. While in developing countries food losses mostly arise during or after harvest, in developed countries consumers are responsible for a huge amount of food losses. In continental comparison most food is discarded in the United States and in Europe, where more than 40 % of food gets lost at retail or consumer level (Gustavsson et al., 2011). Regarding the total amount of food losses, about a quarter of food (by weight) is wasted in the form of vegetables and approximately a fifth in form of fruit. Thereof mostly bananas and apples are wasted. In total 13.5 % (by weight) of the fruit wastage is avoidable. From all vegetable wastage, 18 % were avoidable, and almost half of the weight of wasted vegetables are potatoes (Ventour, 2008). Food losses can be the consequence of various reasons and can be found at every level along the value chain (Lipinski et al., 2013). Table 14 shows examples of the genesis of food losses.

stage	reason	cause
<b>production or harvest</b>	grain leftovers	unsuitable harvest equipment
	selected fish or fruit	neglected quality standards
<b>handling and storage</b>	disease affected grain or fruit	absent storage control, adverse weather conditions
<b>processing and packaging</b>	milk spilling, inadequate fish or inappropriate fruit for processing	unsuitable equipment, technical faults or absent storage control
	surplus production or overstocking	not applicable order forecasts
<b>distribution and marketing</b>	not corresponding to aesthetical standards	interruption of the cooling chain, surplus production
	not sold before “best before” or “use-by” dates	not applicable order forecasts, surplus production
<b>consumption</b>	bought food which is not eaten	poor taste, expired “best before” or “use-by” dates

Table 14: Exemplary causes of food losses

Modelled by: Lipinski et al., 2013; Buzby and Hyman, 2012 and Schneider, 2009

In the United Kingdom consumers discard 6.7 million tonnes of food, whereby most of this food is suitable for human consumption. Most of this avoidable food loss can be traced back to fruit and vegetables, which made up 40 % of avoidable food losses. Mainly food is thrown away, because products passed the “best before” or “use-by” dates. Daily 5.1 million potatoes, 4.4 million apples and 1.6 million bananas are wasted without being touched before (Johnson et al., 2008). Often purchased food is thrown away uneaten. Mostly this is done with salad, bakery products and fruit (Ventour, 2008). In Germany, 1 % of produced food is discarded, which is equivalent to 138 million tonnes of produced food and 1.8 million tonnes of wasted food. In a European comparison, Germany produces the largest quantity of food, followed by France and Spain. The major quantities of food losses occur in Poland, the Netherlands and Italy. The German amount of food losses is ranked on seventh position within the EU. On the percentage

basis of produced food Estonia is on top with 21 % of food losses, followed by Poland (14 %), the Netherlands (13 %) and Sweden (12 %). In total within the European Union, 5 % of produced food gets lost (Monier et al., 2010).

The manufacturing industry attempts actively to enhance their environmental achievement, in which the area of food losses is included. But along the supply chain at food processing a large amount of food losses arise (Morgan, 2009). In total, the second largest amount of food losses emerges at processing stage (Gooch, 2012). In the European Union, 39 % of food losses can be traced back to the manufacturing sector. A higher quantity even gets lost by households (42 %) (Monier et al., 2010). During processing and packaging most losses occur in the product groups of root/tubers (15 %), grain (0,5 - 10 %), fish (6 %), meat (5 %) and oil seed/pulses (5 %). Lower waste rates are found in the product groups of fruit and vegetables (2 %) and dairy products (1,2 %) (Gustavsson et al., 2011). Food packaging is of high importance regarding presentation, protection and preservation. It can also prolong food life (Cabinet Office, 2008). To reduce food losses along the entire supply chain, it is necessary to have a look what is already done in manufacturing companies and which measures have been implemented to decrease food losses. Following questions emerge: What relevance has the topic food losses in manufacturing companies? Which measures have already been implemented? How the consumer is involved: is there a communication to consumers with regard to reduce food losses?

## **Methods**

The methodical implementation of this study was carried out by qualitative interviews, which were done with ten experts of leading companies in the German food sector. Qualitative methods could achieve a first structure to the field of study and comprehend circumstances in cause studies (Kepper, 1996). Further qualitative interviews can obtain information of selected persons regarding to a specific issue and can explore special areas or different statements (Luegner, 2010). In comparison to variable-based analyses of quantitative evaluations, the qualitative elevation allows a case-oriented perspective. Over and above that, the embedding of statements in the context is significantly stronger (Kuckartz et al., 2008).

The interviews were done with an opened, semi-standardised questionnaire, to fulfil the topically limited interest of the researcher as well as the expert status of the respondent (Meuser and



Nagel, 2002a). Therefore, an interview guide was prepared in the run-up of the survey, where neither the formulation of the questions nor the order of the questions was obligatory (Gläser and Laudel, 2009). Thus it was a guarantee that special, for the investigation necessary topics were considered within the communication (Meuser and Nagel, 2002a and Gläser and Laudel, 2009) or the interview goes off a tangent (Kuckartz et al., 2008). The use of such an interview guide intends a logical sequence of questioning (Kuckartz et al., 2008), whereby the interviewer can request at any time if there are interesting statements and can expand this content. The way of answering is facultative for the respondent (Gläser and Laudel, 2009). The formulation of fixed questions should be avoided to react individually to each respondent (Kepper, 1996). Further, an interview guide should serve as a comparability of the interview notes (Meuser and Nagel, 2002b). The used interview guide was structured in three sections: relevance of the problem for the company and the supply chain and approaches to reduce food losses. These sections reflect central aspects of the interest of knowledge.

For this investigation, 46 companies of the German food sector were invited via e-mail to participate. In total, ten interviews (response rate of 21.74%) have been carried out by telephone. A recording was neglected to avoid the development of an upper barrier regarding the questioning of a sensitive issue. The ten interviews were analysed with the qualitative data analysis software MAXQDA. By means of a coded process, the approach of the Grounded Theory was used (Strauss and Corbin, 1990). The interview notes were read and assigned in a system of categories, which were split hierarchically into root- and sub-categories. On the basis on the system of categories, the interview notes were read and assigned to the appropriate codes. Thereby the codes can be allocated to coherent text units that the codes can be retrieved as whole phrases and contemporaneously operate as values (Ryan and Bernard, 2000).

## **Results**

### *Sample Description*

The qualitative survey comprises ten interviews with experts of leading companies in the German food sector. Table 15 shows the sample characteristics like branches and company sizes, which were selection criterions. Half of the companies operate in the fruit and vegetable industry, the other split in bakery (two companies), meat (two companies) and confectionery

industry (one company). The respondents are engaged mostly as quality managers or company managers. The questioned companies are of large scale and count to Germany's leading companies in the food sector in the branches fruit and vegetable, bakery, confectionary and meat, with a number of employees between 350 and 2,000. The companies gain a turnover between 0.12 to 2.5 billion €.

Branches	Fruit and Vegetable Industry	Confectionary Industry	Bakery Industry	Meat Industry
	5	1	2	2
Company Size	Large scale enterprise			
Number of Employees	Between 350 and 2,000			
Company Turnover	Between 0.12 billion € and 2.5 billion €			
<sup>a</sup> The sizing results of the classification of the German Federal Statistical Office, which based the sizing due to the recommendation of the Commission of the European Communities from Mai 2003 (Klees, 2008).				

Table 15: Sample characteristics

Source: BMJV, 2014 and Companies Websites<sup>27</sup>

### *Results of the Expert Survey*

The issue of food losses is nearly in all questioned companies (eight out of ten) of high relevance. Two companies of the fruit and vegetable industry ascribe the topic with lower relevance for their company because of trading with perishable goods or the difficulty to handle the topic. Similarly are the appraisals of the relevance of the topic food losses for the supply chain of each company. Seven out of eight (two respondents gave no response) rated the topic with high relevance for their supply chain. One company indicated that food discarding on economic criteria has to be avoided, but the topic has not been addressed in this company until now.

The respondents estimate that the highest quantity of food losses along the value chain accrues at consumer level (six expressions), followed by production (three expressions) and trade (two expressions). The main reasons for the emergence of food losses in companies are seen in technical problems or food contaminations (nine expressions) and requirements regarding the

<sup>27</sup> Due to the data-protection provision the original sources could not be named.

range in retail (five expressions) as well as organisation within the supply chain (4 expressions). But there are cross-sector differences regarding the causes of food losses (Table 16). In the meat industry even technical problems or food contaminations in conjunction with (after-effects of) food scandals and range requirements of the retail in conjunction with the expiry of the best-before-date are main causes of food losses. In comparison, in the bakery industry the consumer behaviour is more important. End pieces of bread and toast are not desired by consumers. As a result arises food losses in the form of end pieces of bread and toast, which should be as small as possible by the companies due to continual optimisations in the production processes. In contrast, in the fruit and vegetable industry, technical problems, food contamination and organisation within the supply chain and trading standards<sup>28</sup> are responsible for food losses. Products, which do not comply with the trading standards, remain in fields and are used as green manure. Otherwise fruit and vegetables, which do not comply with the trading standards, are sorted out by retailers. The respondents criticise that there is no flexibility like special offers for fruit and vegetables, which do not satisfy the trading standards. Another problem is that the trading standards are interpreted differently. The norms of the retail are stricter than the regulations by law.

	Total	Fruit and Vegetable Industry	Confectionary Industry	Bakery Industry	Meat Industry
Technical problems/food contaminations	9	5	1	1	2
Range requirements of retail	5	2	-	1	2
Organisation within the supply chain	4	4	-	-	-
Trading standards	2	2	-	-	-
Consumer behaviour	2	-	1	1	-

Table 16: Causes of food losses

Source: Author's calculations

<sup>28</sup> The trading standards of the European Union regulate the commercialization of fruit and vegetables and were loosened in 2009. Now they exist for ten fruit and vegetable grades with the highest turnover (European Commission, 2009).

As adjusting lever for the diminution of food losses, companies optimise their different production steps (eight expressions) and further process the food remains and losses (six expressions). Especially the maintenance of the cooling chain is of high importance in the fruit and vegetable industry. Additionally these companies donate their surplus food to not-for-profit organisations, while the companies of the other branches support their employees with further training. Even in the processing of fresh fruit and vegetables accrue biological waste, which, for example, is used to obtain energy. In the meat industry are also remnants out of some parts of animal carcasses which are used (in some cases) to feed animals or for the export to other countries for further processing.

In order to minimize food losses, the respondents estimate that the requirements of the retail have to get inferior. This is especially in the bakery industry of high relevance where the retail expects full shelves until closing time in bakery shops. But the role of the consumers is important, too. The respondents note that the seasonal disposal of products, especially in the fruit and vegetable industry, is important. In the area of consumer behaviour, it is necessary to elucidate the consumers` regarding to expand the knowledge in general, especially in the light of the best-before-date. The respondents agree that the consumer behaviour is a crucial factor to avoid food losses and that, in this context, educational work is needed. Thereby it is suggested to offer knowledge about food already in schooldays. Consumers have to be aware that products cannot look similar at every time and are not comparable with pictures. Such external defects have not inevitably an influence on taste. For instance, a pressure mark of an apple can be cut away, and not the whole apple has to be disposed. The consumer has to learn the handling with food to induce changes in consumer attitudes and awareness. Even the consumers` attitude towards the best-before-date of food has to be modified. Best-before-dates influence the purchase decision of consumers and it is advantageous to keep the best-before date as long as possible. Educational work in this field is necessary.

In total, the respondents estimate prospectively a rising relevance of the topic food losses (five out of seven, three respondents gave no response). In one company of the fruit and vegetable industry the issue of food losses is actually not relevant, and there is not seen any change in the treatment of this topic. The company argues that due to the perishableness of fresh fruit and vegetables, it is not possible to provide not accepted fruit and vegetables to countries which suffer deprivation. The other companies state that the relevance of food losses will increase in

future because of an increase of the population, lower availability of food as well as raw material scarcity and related to this rising food prices. Regulatory measures for a diminution of food losses along the supply chain are considered not to be necessary and not practicable.

However, in light of the rising relevance of the issue of food losses most of the companies (seven out of ten) do not see a proactive approach of the topic as differentiating factor in competition. This adjustment is justified with no sufficient importance at consumer level (four expressions); other advertising campaigns are more successful (three expressions) or costly implementation of the issue of food losses (two expressions). In this case, the companies indicate that the issue of food losses has no positive meaning for the consumers and consumers expect low rates of food losses during the production processes. Other aspects like sustainability or regionality are more efficient to differentiate in competition. In contrast, of packaging sizes, for example, smaller packages for single-households, are useful, but for companies less attractive in case of rising costs. One respondent considers that the society is aligned on consumption. It would be a contradiction to advertise products with claims to buy less food. Therewith companies would achieve a lower turnover, which is not desired in the economic system.

## **Discussion and Conclusion**

In view of rising significance of sustainable food and increasing consumer interest in sustainable food, the issue of food losses is of high relevance, especially to economic aspects for companies, but also due to ecological and social reasons. Thereby the relevance of the topic food losses is rising in the agri-food industry, both in single companies and the entire supply chain. At consumer level the greatest quantity of food losses occurs, followed by production and retail (Kranert et al., 2012). This is also reflected by the results of the qualitative research.

Both, the results of the present study and the results of previous studies, such as Kranert et al. (2012), Lipinski et al. (2013), Buzby and Hyman (2012) and Schneider (2009), show that the reasons for wasting food in manufacturing companies are manifold. The experts stated that the causes of food losses extend from technical problems due to requirements of retail and the organisation within the supply chain, whereby cross-sector differences consist. Especially in the fruit and vegetable industry, where additional trading standards exist which are interpreted differently by retail and companies. Retailers' requirements are more stringent than the ones

predicted by law. In this area potential to reduce food losses is seen, when they find a better consultation and the possibility to sell objectionable products. The manufacturing industry tries a lot to attempt actively a better environmental achievement (Morgan, 2009). In this case companies constantly optimize their production steps, further process food remains, support employees with further training or donate surplus productions to not-for-profit organisations.

In most companies, the topic is present and also measures to reduce food losses and to use resources efficiently are initiated. However, companies do not see a differentiating factor in competition by a proactive approach of the topic. It is argued that the topic of food waste has no sufficient significance at consumer level and other advertising campaigns or other topics, like sustainability or regionality, are more successful. There is no communication with the consumers referring to companies' efforts concerning the reduction of food losses and the reversion and protection of the environment and sustainable acting.

In total, the highest amount of food losses is seen at consumer level, because of different nutrition behaviour and mangling knowledge. Educational work is necessary to increase the appreciation of food. On the other hand, the number of environmentally conscious consumers is rising and even more show this in their behaviour. This consumer segment ascribes a great significance for companies' actions which protect the environment and expect comprehensible information about their engagement (Fraj and Martinez, 2006). Annunziata et al. (2011) stated that companies have to challenge new ways of marketing, for example, the offer of ethical products to differentiate in competition (ibid). With regard of advertising of products dealing with aspects which are not generally used in consumers' communication such as the reduction of food losses and the avoidance of a variety of influences to the environment or the consideration of ethical aspects, etc. can lead to competitive advantages. That way new consumer segments can be developed by a transparent and credible communication with consumers.

However, prospective companies will also avoid food losses, primarily because of economic aspects. Due to population growth, raw material scarcity and rising food prices there will be a further increase of the relevance of the issue food losses in the agri-food industry. A communication to consumers of companies' efforts regarding to avoid food losses is not planned for the future. But companies could contribute to make the topic public at consumer level and to get an advantage in positioning as well as to improve the companies' image towards a

sustainable company. Gleim et al. (2013) have shown that expertise is significant for the decisive process regarding the purchase of green products. Further, the modification of number and form of information brokerage can lower purchase barriers (ibid). It has to be verified in future studies whether a suitable consumer communication can contribute to a better company image or can increase sale figures regarding to differentiate from the competition. Further, it should be investigated if the results of the qualitative study are transferable.

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# **Consumers' Perception Of Sustainability In Food Chains: Perspectives For Future Marketing**

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## **Abstract**

This study investigates consumers' perception of sustainability and food along three food chains (orange juice, salmon, and beef and dairies) from production to the end of life with the goal to achieve a better understanding of consumers' motivation to purchase sustainable food and to improve the marketing through labelling and other ways of communication across the European Market. The topic was researched in six extended focus groups, two in each of the three countries: Spain, Romania and Denmark. All in all 62 consumers in the age from 20 to 60 years participated. They were screened and were expected to have neutral or positive attitudes towards sustainability. The results show that the consumers share many perceptions and concerns across countries though also country specific differences were found. Consumers lack information and knowledge regarding sustainability and express the need for information in the shopping situation in order to compare and choose more sustainable food seen from an individual perspective as it is not the case that consumers share a common understanding of what is most important regarding sustainability and there is a trade off with other quality characteristics of food as well.

**KEYWORDS** consumer behaviour, food labelling, sustainability, food chains

## **Sustainable Seafood: Understanding Current Stakeholder Perspectives**

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## **Abstract**

While sustainability is a topical buzz word for the seafood industry, with a recent Google search on the term ‘sustainable seafood’ scoring over 7.6 million hits, the current literature indicates a lack of consensus on what sustainability means in relation to seafood, particularly when considering the perspectives of the various stakeholders involved, which span governments, NGOs, the seafood industry (producers, processors, middle men and service providers such as retailers), and consumers. This paper reviews the current literature and identifies how each stakeholder group defines sustainability in relation to seafood. Results highlighted several sources of confusion, ambiguity and conflict in the field, including gaps in current research. These results provide an understanding of the various stakeholder perspectives as a starting point for developing strategies by different stakeholder groups.

Keywords: seafood, sustainability, stakeholders